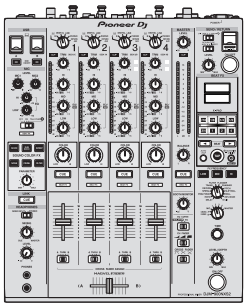
Pioneer

Service Manual



DJM-900NXS2

ORDER NO.
RRV4643

DJ MIXER

DJM-900NXS2

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
DJM-900NXS2	LSYXJ	AC 110 V to 240 V	
DJM-900NXS2	UXJCB	AC 110 V to 240 V	
DJM-900NXS2	XJCN	AC 220 V	

THIS SERVICE MANUAL SHOULD BE USED TOGETHER WITH THE FOLLOWING MANUAL(S).

Model	Order No.	Remarks
DJM-900NXS2	RRV4644	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM, PCB PARTS LIST

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ⓒ **Pioneer DJ Corporation 2016**

K-MZV FEB. 2016 Printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

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1. SERVICE PRECAUTIONS

1.1 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.
  Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.
  Do NOT use a soldering iron whose tip temperature cannot be controlled.

1.2 NOTES ON REPLACING

The part listed below is difficult to replace as a discrete component part.
When the part listed in the table is defective, replace whole Assy.

Assy Name	Parts that is Diffcult to Replace			
	Ref No.	Function	Part No.	Remarks
MAIN Assy	IC1	MAIN UCOM	AM3352BZCZ100	BGA
	IC2	PMIC	TPS65910A31A1RSL	IC with heat-pad
	IC9	DDR3 SDRAM	K4B1G1646G-BCK0	BGA
	IC16	LAN PHY	LAN8720A-CP	IC with heat-pad
	IC1001	DSP	D810K013DZKB456	BGA
	IC1501	SRC_DSP	D810K013DZKB456	BGA
	IC3002	CLK Generator	SI5351C-B03300GM	IC with heat-pad
	IC4502	12V → 5V Regulator	NJM78M05DL1A	IC with heat-pad
	IC4503	5U → 5V Regulator	NJM78M05DL1A	IC with heat-pad
	IC4507	12V → 1.285 DC/DC converter	BD9328EFJ	IC with heat-pad
	IC4512	15U → 15V Regulator	NJM78M15DL1A	IC with heat-pad
USBP Assy	IC4852	High Side SW	TPS2557DRB	IC with heat-pad
HPPW Assy	IC8001	12V → 7V DC/DC converter	MM3543BH	IC with heat-pad
	IC8002	12V → -7V DC/DC converter	NJW4154GM1	IC with heat-pad
	Q8210, Q8211, Q8213, Q8215	Transistor	2SD1760F5 (R)	Transistor with heat-pad
	Q8209, Q8212, Q8214, Q8216	Transistor	2SB1184F5 (R)	Transistor with heat-pad
CDCB Assy	IC4902	X-PAD TOUCH CONTROLLER	ATSAMD20E15A-MU	IC with heat-pad

1.3 SERVICE NOTICE

■ VOLTAGE MONITORING

This unit always monitors for power failure and will shut itself off immediately after an error is detected.
A power failure is indicated with flashing of the QUANTIZE LED (Intervals: 250 ms [Lit 125 ms/Unlit 125 ms]).
All the LEDs other than QUANTIZE LED will be unlit, and all the switches and VRs will be disabled.
Repair the unit according to the diagnostic procedures described in "5.3 INFORMATION ON POWER DIAGNOSTICS."

■ CONFIRMATION OF USER-SETTING

This product has user-setting data. Be sure to confirm those data before starting repair, although changing them may not have a large effect. Use the Check Sheet in "8.3 USER SETABLE ITEMS" to which you can transcribe the settings, as required.
The settings are stored in FLASH ROM (IC8) on the MAIN Assy.
For details, refer to "Changing the settings" in the operating instructions.

■ FLASH ROM ON THE MAIN Assy

Never replace the FLASH ROM (IC8) on the MAIN Assy during servicing.
If the FLASH ROM is assumed to be defective, replace the whole MAIN Assy.
This FLASH ROM contains data that can only be written in at the factory.
An IEEE 802.3-based MAC address specific to this unit has been written.

■ X-PAD TOUCH CONTROLLER ON THE CDCB Assy

Never replace the X-PAD TOUCH CONTROLLER (IC4902) on the CDCBN Assy during servicing.
If the IC4902 is assumed to be defective, replace the whole CDCB Assy.
This X-PAD TOUCH CONTROLLER contains data that can only be written in at the factory.

■ CROSS FADER Assy replacement

Noncontact faders are adopted for the cross faders with this product. Compared with conventional contact-type cross faders, noncontact faders offer dozens of times the durability.
Because high accuracy is required for assembly of the fader section, the service part of this section will be supplied as a whole Assy. Use the CROSS FADER Assy (DXA2257) for replacement.
After replacement, be sure to perform "CFDR SET" in Crossfader calibration mode of Test mode. If you don't, the unit may not start up properly.
Note that performing "CFDR SET" in Cross Fader Calibration mode is also required after replacement of the PNLA Assy.

2. SPECIFICATIONS

General

Power requirements.....AC 110 V to 240 V, 50 Hz/60 Hz (LSYXJ and UXJCB)
Power requirements.....AC 220 V, 50 Hz/60 Hz (XJCN)
Power consumption .....60 W
Power consumption (standby) .....0.4 W
Main unit weight.....8.0 kg (17.6 lb)
Max. dimensions.....333 mm (W) × 107.9 mm (H) × 414.2 mm (D) (13.1 in. (W) × 4.2 in. (H) × 16.3 in. (D))
Tolerable operating temperature.....+5 °C to +35 °C (+41 °F to +95 °F)
Tolerable operating humidity.....5 % to 85 % (no condensation)

Audio Section

Sampling rate .....96 kHz
MASTER D/A converter.....32 bit
Other A/D and D/A converters.....24 bit
Frequency characteristic
  LINE.....20 Hz to 40 kHz
S/N ratio (rated output)
  PHONO .....88 dB
  LINE.....105 dB
  MIC1, MIC2 .....79 dB
Total harmonic distortion (LINE — MASTER1) .....0.005 %
Standard input level / Input impedance
  PHONO .....–52 dBu/47 kΩ
  LINE.....–12 dBu/47 kΩ
  MIC1, MIC2 .....–52 dBu/8 kΩ
  RETURN.....–12 dBu/47 kΩ
Standard output level / Load impedance / Output impedance
  MASTER1.....+6 dBu/10 kΩ/100 Ω or lower
  MASTER2.....+2 dBu/10 kΩ/390 Ω or lower
  REC OUT.....–8 dBu/10 kΩ/22 Ω or lower
  BOOTH.....+6 dBu/10 kΩ/100 Ω or lower
  SEND.....–12 dBu/10 kΩ/1 kΩ or lower
  PHONES .....+8.5 dBu/32 Ω/1 Ω or lower
Rated output level / Load impedance
  MASTER1.....+25 dBu/10 kΩ
  MASTER2.....+21 dBu/10 kΩ
Crosstalk (LINE) .....82 dB
Channel equalizer characteristic
  HI.....–26 dB to +6 dB (30 kHz)
  MID.....–26 dB to +6 dB (1 kHz)
  LOW .....–26 dB to +6 dB (20 Hz)
Microphone equalizer characteristic
  HI.....–12 dB to +12 dB (10 kHz)
  LOW .....–12 dB to +12 dB (100 Hz)

Input / Output terminals

PHONO input terminal
  RCA pin jacks.....4 sets
LINE input terminal
  RCA pin jacks.....4 sets
MIC1 input terminal (XLR/TRS)
  XLR connector & 1/4" TRS jack.....1 set
MIC2 input terminal (TRS)
  1/4" TRS jack .....1 set
RETURN Input terminals (TS)
  1/4" TS jack.....1 set
DIGITAL IN coaxial input terminal
  RCA pin jacks.....4 sets
MASTER output terminal
  XLR connector.....1 set
  RCA pin jacks.....1 set
BOOTH output terminal (TRS)
  1/4" TRS jack .....1 set
REC OUT output terminal
  RCA pin jacks.....1 set
SEND output terminal (TS)
  1/4" TS jack.....1 set
DIGITAL MASTER OUT coaxial output terminal
  RCA pin jacks.....1 set
PHONES output terminal
  1/4" stereo phone jack .....1 set
  3.5 mm stereo mini jack.....1 set
USB terminal
  Type A.....1 set
Power supply...5 V/2.1 A or less
  B type .....2 sets
LINK terminal
  LAN terminal (100Base-TX) .....1 set

• The specifications and design of this product are subject to change without notice.

■ Accessories

• Power cord
  (LSYXJ: ADG1244)
  (UXJCB: DDG1108)
  (XJCN: DDG1114)

• USB cable
  (DDE1128)

• Operating Instructions (Quick Start Guide)
  (LSYXJ: DRH1331, DRH1332)
  (UXJCB: DRH1330)
  (XJCN: DRH1333)

3. BASIC ITEMS FOR SERVICE
3.1 CHECK POINTS AFTER SERVICING

Items to be checked after servicing

To keep the product quality after servicing, confirm recommended check points shown below.

No.	Procedure	Check points
1	Check the firmware version in Test mode.	The firmware version must be the latest one. If it is not the latest one, be sure to update it.
2	Confirm whether the customer complain has been solved. If the customer complain occurs with the specific source, such as Mic, each Input, Fader, Equalizer, and Trim, input that specific source for checking.	The customer complain must not be reappeared. Audio and operations must be normal.
3	Check the analog audio input (Check the each Channel, MIC1, MIC2 and RETURN.) (Make the analog connections with CDJ player, analog player and MIC.)	Audio and operations must be normal.
4	Check the analog audio output (MASTER1, 2, REC, BOOTH and SEND.) (Make the analog connection with CDJ player.)	Audio and operations must be normal.
5	Check the digital audio input/output (Make the dgital connection with CDJ player.)	Audio for each channel and operations must be normal.
6	Check DVS.	Make sure that PC applications function properly and that the audio signals and operations of each channel are normal.
7	Check the headphones output. (1/4" stereo phone plugs and 3.5 mm stereo mini plugs)	There must be no errors, such as noise, in the audio output.
8	Check playback, using the fader function. (Select the fader function then check operations of each channel with audio signals via the DSP.)	There must be no errors in audio output and operations of each channel.
9	Check the connection of each interface.	
	USB A.	Plug in a USB memory device and check that the USB connection indicator lights.
	USB B.	The device must be properly recognized by the PC.
	LINK.	The Main unit being conected to LAN normally.
10	Check the buttons and controls.	Make sure that all buttons and controls on the main unit function properly.
11	Check operations of the X-PAD.	Touch the X-PAD in Test mode and check that it operates properly.
12	Check the FL displays and LEDs.	Check that all the OLED and LEDs light in Test mode.
13	Check the user settings.	They must be returned to those set before repair.
14	Check the appearance of the product.	No scratches or dirt on its appearance after receiving it for service.

See the table below for the items to be checked regarding audio.

Item to be checked regarding audio	
Distortion	Volume too high
Noise	Volume fluctuating
Volume too low	Sound interrupted

3.2 JIGS LIST

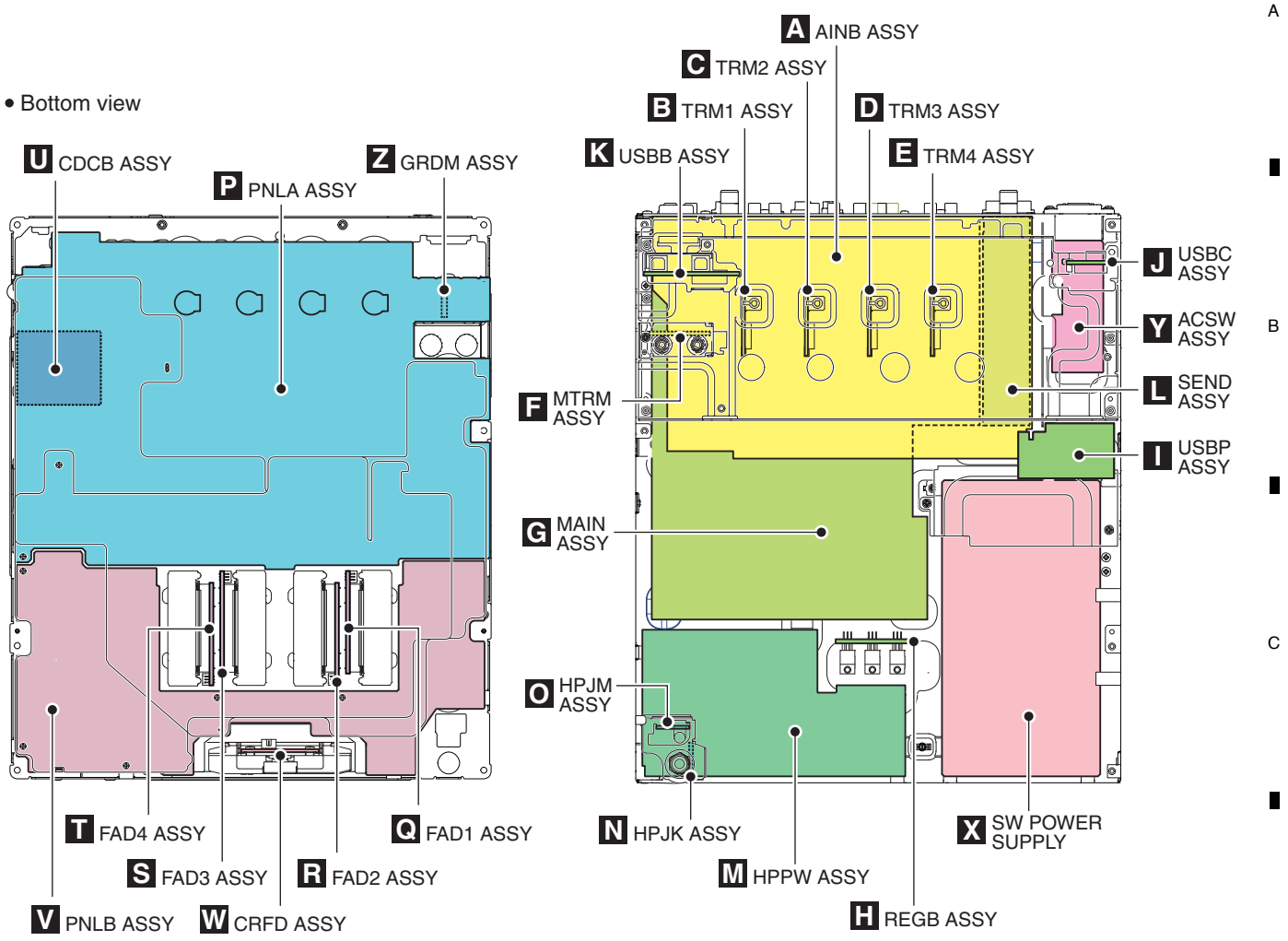
■ Jigs List

Jig Name	Part No.	Purpose of use / Remarks
USB cable	GGP1193	for PC connection, accessory

■ Lubricants and Glues List

Name	Part No.	Remarks
Lubricating oil	GYA1001	Refer to "9.5 CONTROL PANEL SECTION (2/2)".

3.3 PCB LOCATIONS



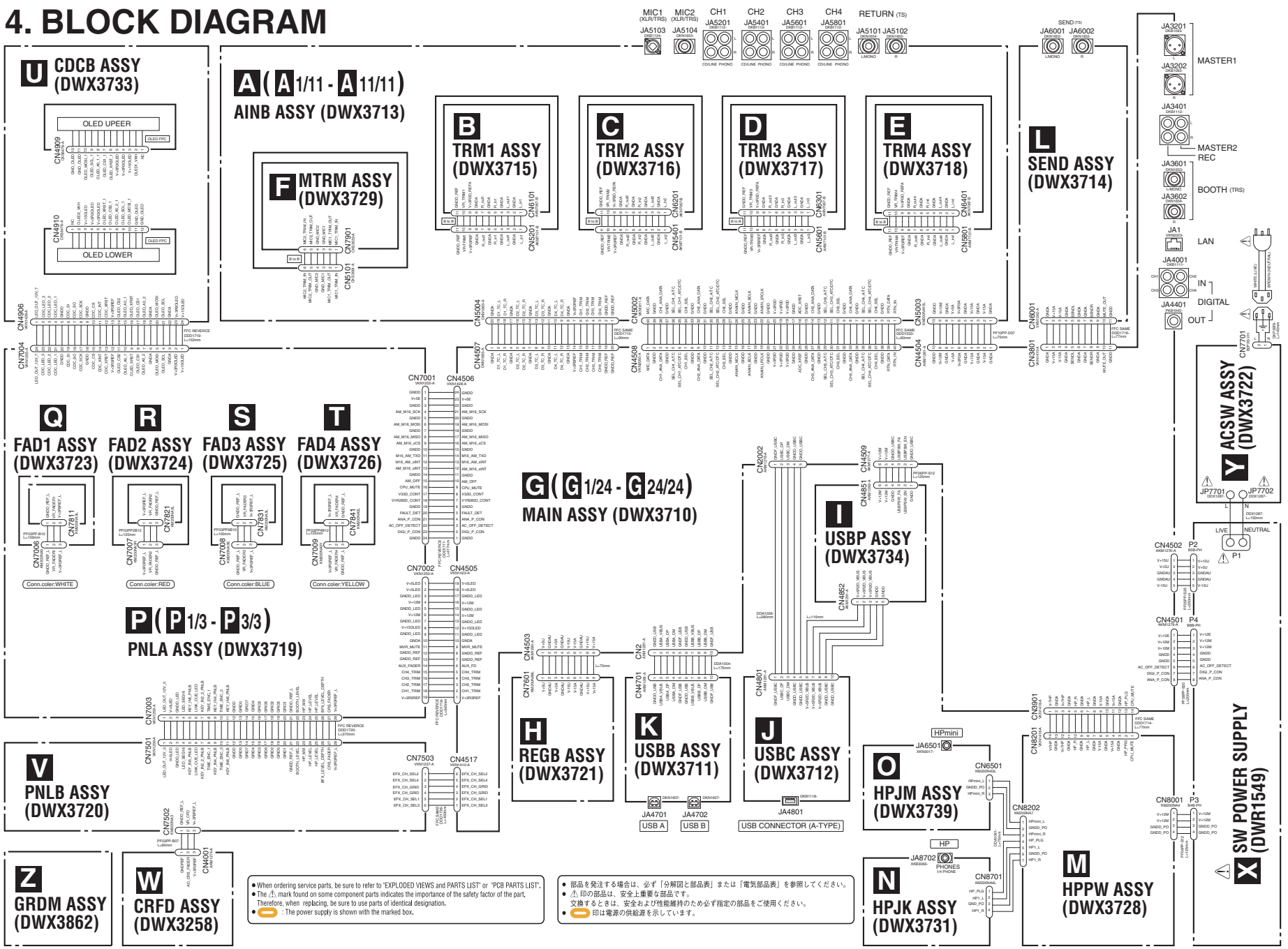
NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
NSP	1	MOTHER ASSY	DWM2574
	2	MAIN ASSY	DWX3710
	2	USBB ASSY	DWX3711
	2	USBC ASSY	DWX3712
	2	USBP ASSY	DWX3734
NSP	1	AUDIO ASSY	DWM2575
	2	AINB ASSY	DWX3713
	2	SEND ASSY	DWX3714
	2	TRM1 ASSY	DWX3715
	2	TRM2 ASSY	DWX3716
	2	TRM3 ASSY	DWX3717
	2	TRM4 ASSY	DWX3718
	2	HPJM ASSY	DWX3739
	1	PNLA ASSY	DWX3719
NSP	1	SUB ASSY	DWM2576
	2	PNLB ASSY	DWX3720
	2	REGB ASSY	DWX3721
	2	ACSW ASSY	DWX3722
	2	FAD1 ASSY	DWX3723
	2	FAD2 ASSY	DWX3724
	2	FAD3 ASSY	DWX3725
	2	FAD4 ASSY	DWX3726
	2	MTRM ASSY	DWX3729
	2	GRDM ASSY	DWX3862
NSP	1	HPAB ASSY	DWM2577
	2	HPPW ASSY	DWX3728
	2	HPJK ASSY	DWX3731
	1	CDCB ASSY	DWX3733
	1	CROSS FADER ASSY	DXA2257
	2	CRFD ASSY	DWX3258
⚠	1	SW POWER SUPPLY	DWR1549

4. BLOCK DIAGRAM

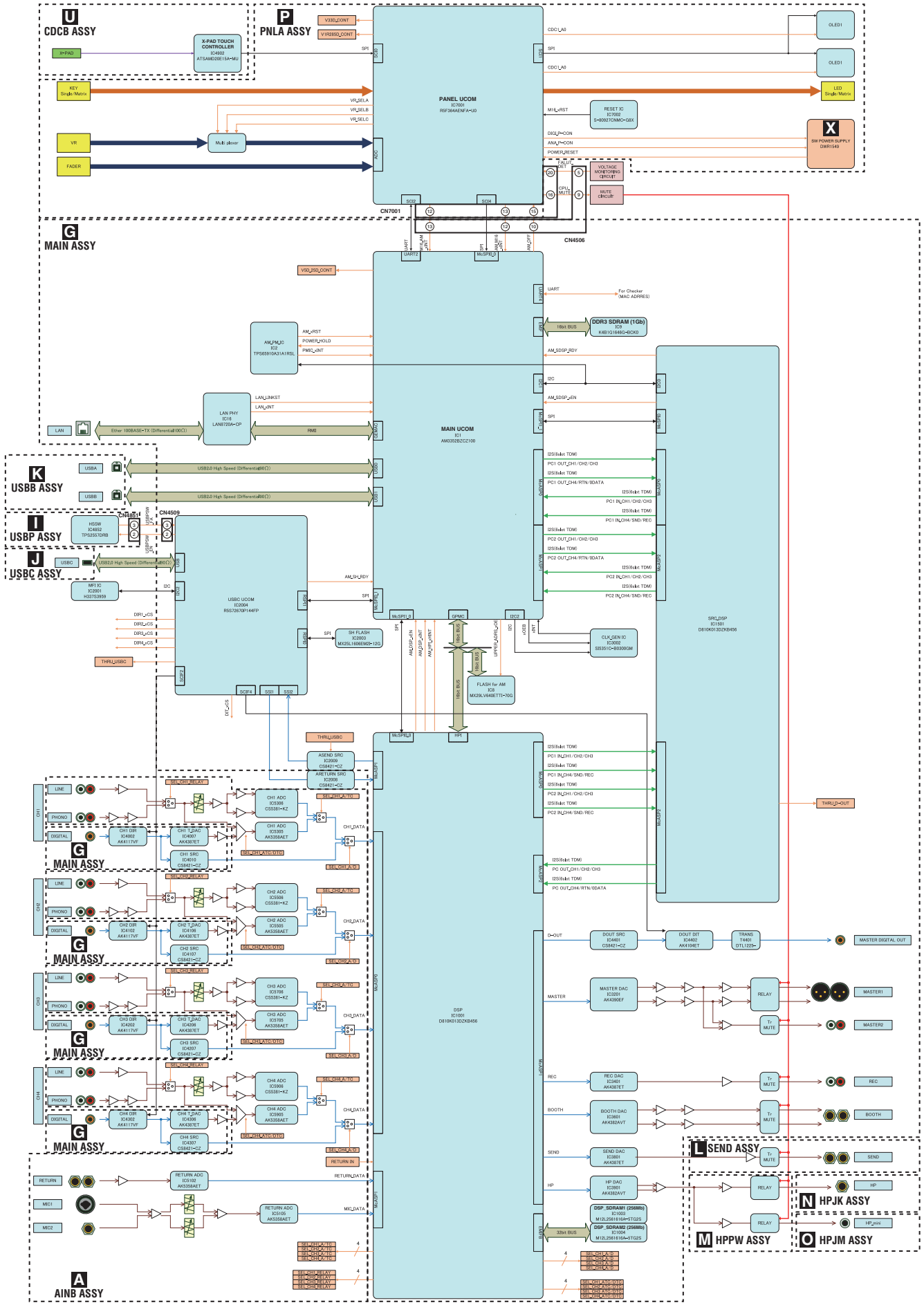
4. BLOCK DIAGRAM
4.1 OVERALL WIRING DIAGRAM



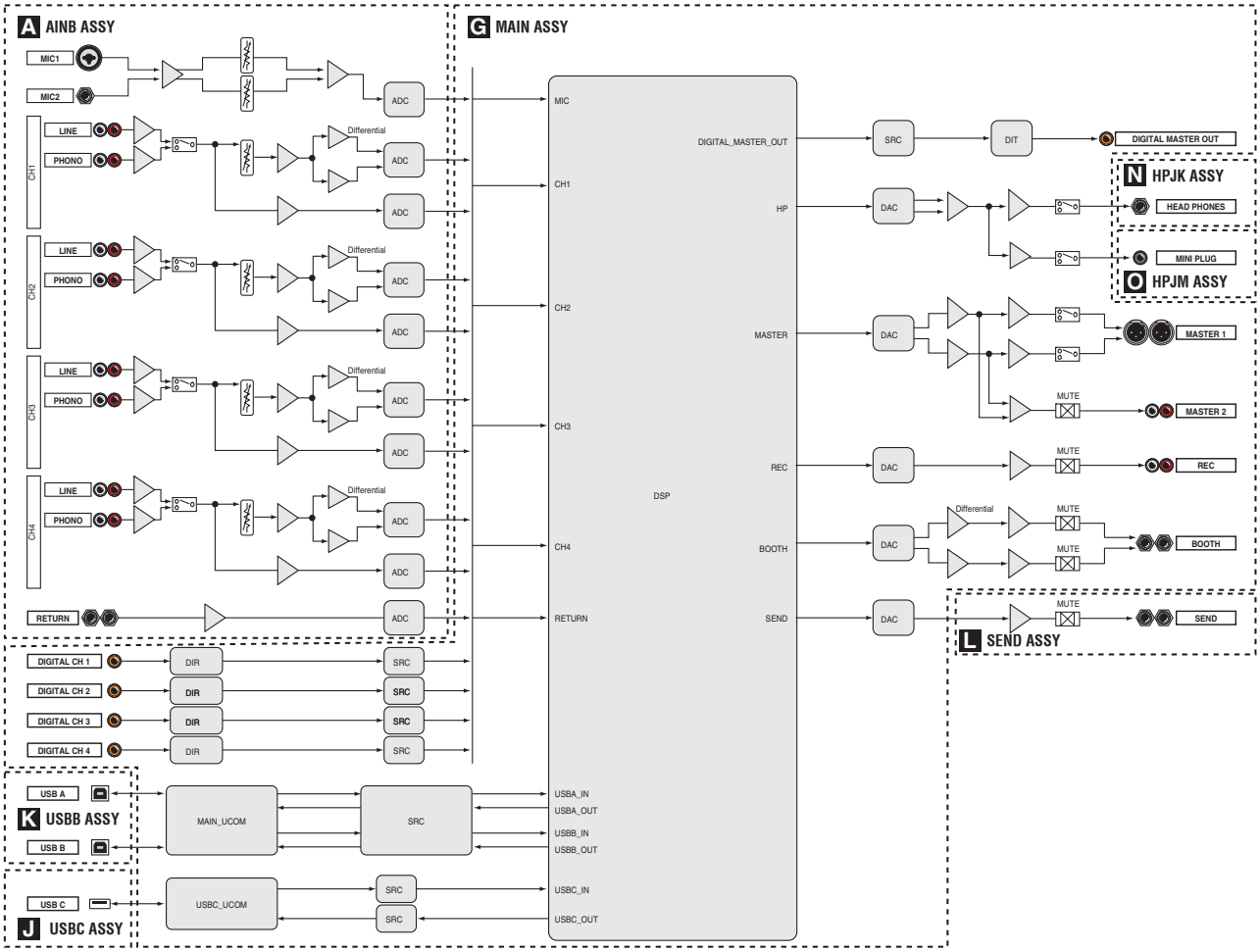
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- : The power supply is shown with the marked box.

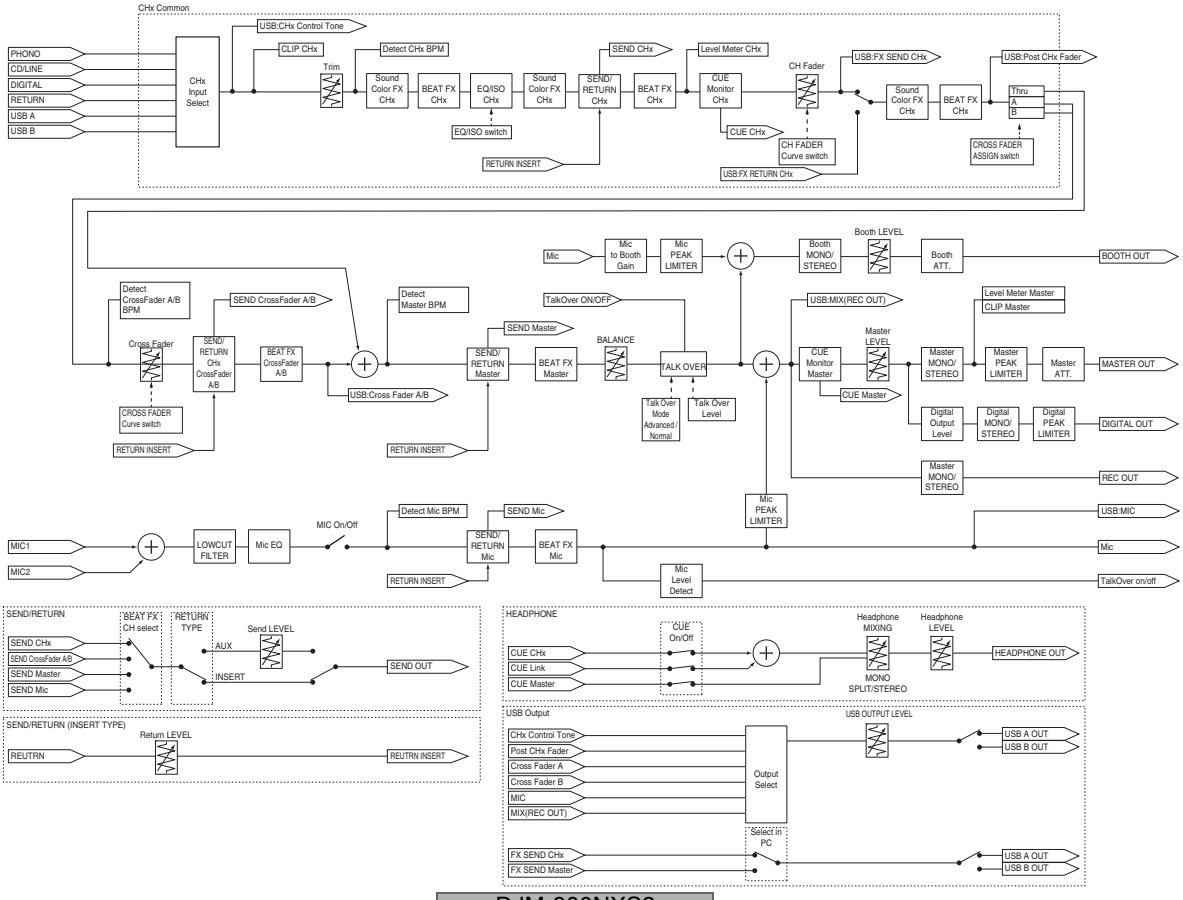
- 部品を発注する場合は、必ず「分解図と部品表」または「電気部品表」を参照してください。
- ⚠ 印の部品は、安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。
- 印は電源の供給源を示しています。

4.2 AUDIO SYSTEM BLOCK DIAGRAM

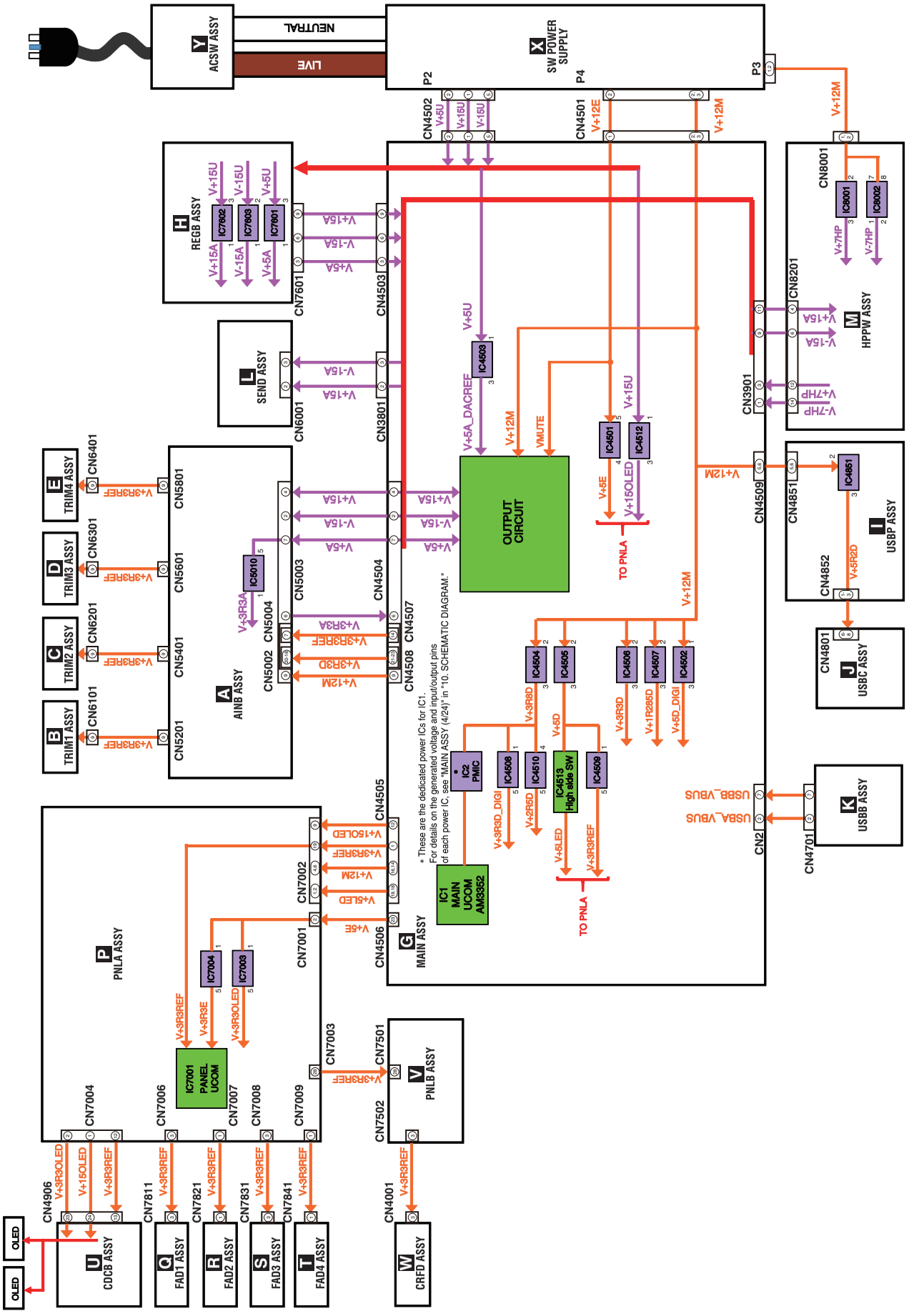


4.3 DSP BLOCK DIAGRAM

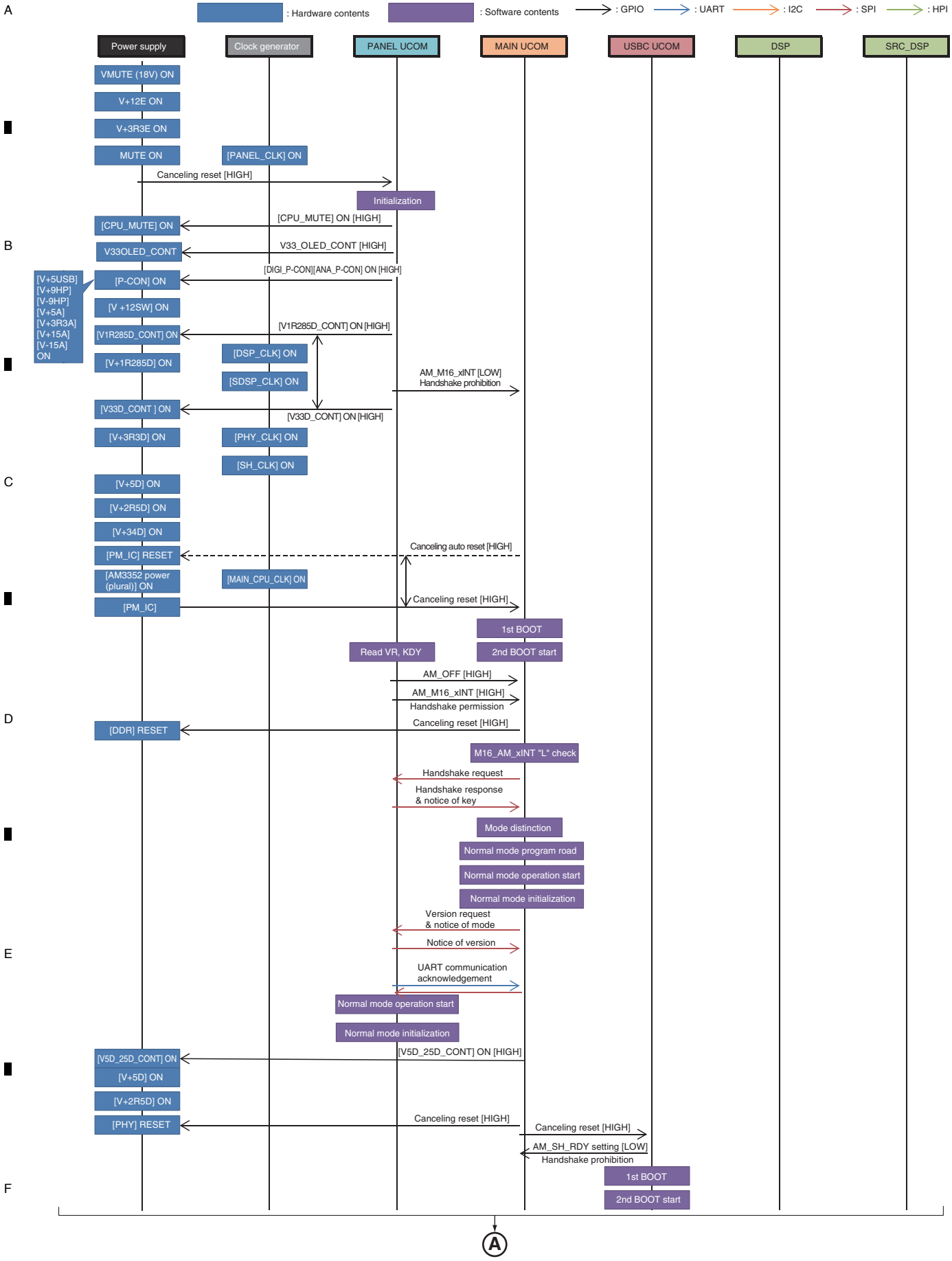


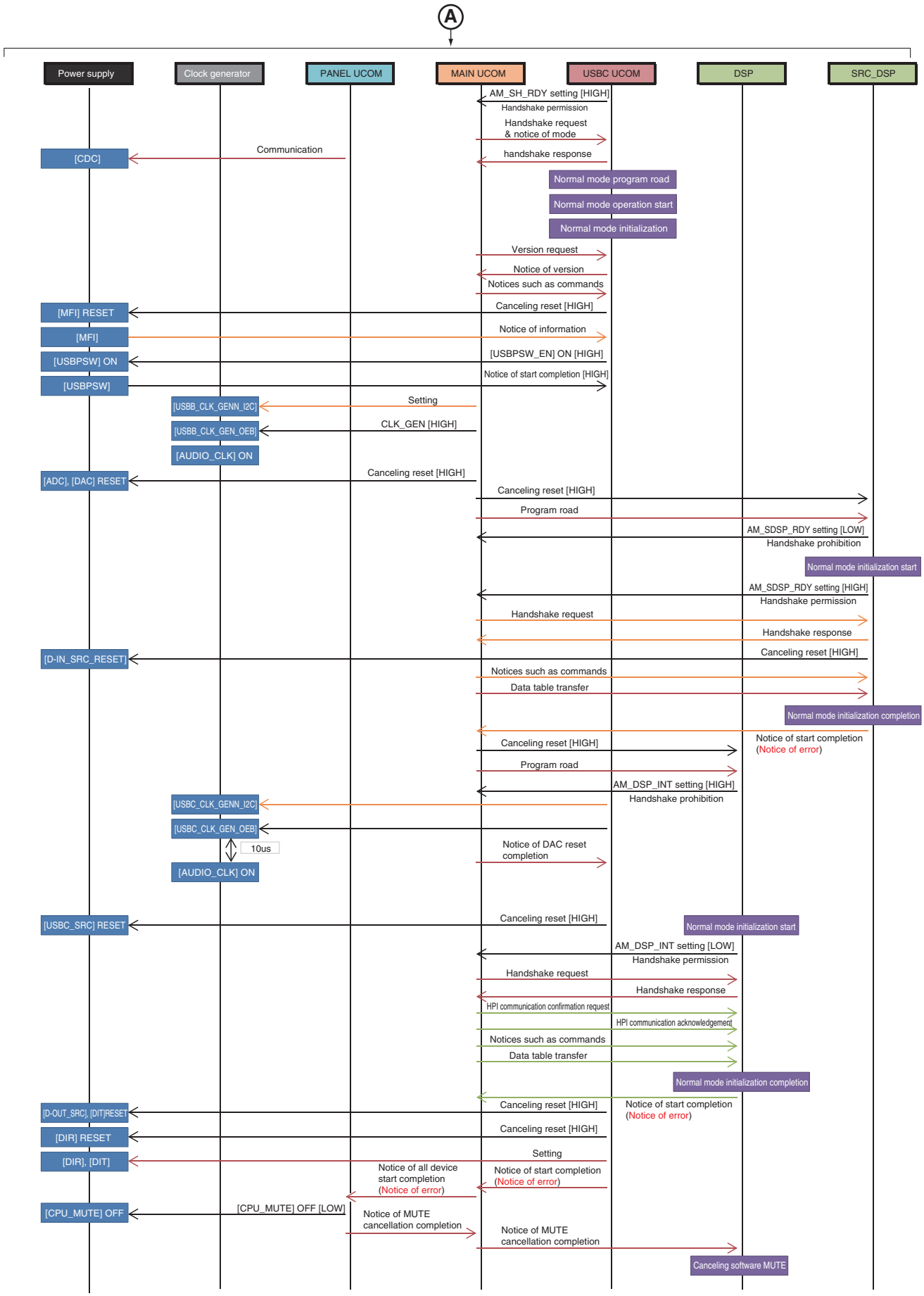


4.4 POWER SUPPLY BLOCK DIAGRAM



5. DIAGNOSIS
5.1 POWER ON SEQUENCE




A
Power supply
Clock generator
PANEL UCOM
MAIN UCOM
USBC UCOM
DSP
SRC_DSP
AM_SH_RDY setting [HIGH]
Handshake permission
Handshake request & notice of mode
handshake response
Communication
[CDC]
Normal mode program road
Normal mode operation start
Normal mode initialization
Version request
Notice of version
Notices such as commands
Canceling reset [HIGH]
[MFI] RESET
Notice of information
[MFI]
[USBPSW_EN] ON [HIGH]
[USBPSW] ON
Notice of start completion [HIGH]
[USBPSW]
Setting
[USBB_CLK_GENN_I2C]
CLK_GEN [HIGH]
[USBB_CLK_GEN_OEB]
[AUDIO_CLK] ON
Canceling reset [HIGH]
[ADC], [DAC] RESET
Canceling reset [HIGH]
Program road
AM_SDSP_RDY setting [LOW]
Handshake prohibition
Normal mode initialization start
AM_SDSP_RDY setting [HIGH]
Handshake permission
Handshake request
Handshake response
Canceling reset [HIGH]
[D-IN_SRC_RESET]
Notices such as commands
Data table transfer
Normal mode initialization completion
Notice of start completion
(Notice of error)
Canceling reset [HIGH]
Program road
AM_DSP_INT setting [HIGH]
Handshake prohibition
[USBC_CLK_GENN_I2C]
[USBC_CLK_GEN_OEB]
10us
Notice of DAC reset completion
[AUDIO_CLK] ON
Canceling reset [HIGH]
[USBC_SRC] RESET
Normal mode initialization start
AM_DSP_INT setting [LOW]
Handshake permission
Handshake request
Handshake response
HPI communication confirmation request
HPI communication acknowledgement
Notices such as commands
Data table transfer
Normal mode initialization completion
Canceling reset [HIGH]
Notice of start completion
(Notice of error)
[D-OUT_SRC], [DIT]RESET
Canceling reset [HIGH]
[DIR] RESET
Setting
[DIR], [DIT]
Notice of all device start completion
(Notice of error)
Notice of start completion
(Notice of error)
[CPU_MUTE] OFF
[CPU_MUTE] OFF [LOW]
Notice of MUTE cancellation completion
Notice of MUTE cancellation completion
Canceling software MUTE

5.2 TROUBLESHOOTING

Contents

[0] Prior Confirmation
- [0-1] Checking Internal Cables
- [0-2] Prior confirmation of power

[1] Failure in Startup
- [1-1] The unit does not turn on, and the LED of the UTILITY (WAKE UP) button does not flash.

[2] Error Indications
- [2-1] "ERROR 1xxx" is displayed on the OLED.
- [2-2] "ERROR 2xxx" is displayed on the OLED.
- [2-3] "ERROR 3xxx" is displayed on the OLED.
- [2-4] "ERROR 4xxx" is displayed on the OLED.
- [2-5] "ERROR 5xxx" is displayed on the OLED.
- [2-6] "ERROR 8xxx" is displayed on the OLED.
- [2-7] "ERROR 9xxx" is displayed on the OLED.
- [2-8] "ERROR 0000" is displayed on the OLED.

[3] AUDIO INPUT
- [3-1] No signal is input to the LINE, PHONO connectors.
- [3-2] No signal is input to the DIGITAL connector.
- [3-3] No signal is input to the MIC1/MIC2 connectors.
- [3-4] No signal is input to the RETURN connector.

[4] AUDIO OUTPUT
- [4-1] No signal is output from the MASTER1/MASTER2 connectors.
- [4-2] No signal is output from the REC connector.
- [4-3] No signal is output from the BOOTH connector.
- [4-4] No signal is output from the SEND connector.
- [4-5] No signal is output from the PHONES connector.
- [4-6] No signal is output from the DIGITAL MASTER OUT connector.

[5] DVS
- [5-1] A device connected to the USB connector cannot be recognized.

[6] Indicator (OLED/LED) not lit
- [6-1] The OLED does not light.

[7] X-PAD
- [7-1] Pressing on the X-PAD not be detected.

[8] LAN
- [8-1] No LAN communication.

[9] Crossfader
- [9-1] Abnormal function of the crossfader
- [9-2] The crossfader is inoperable.

[10] USBC
- [10-1] A connected device does not recognize the unit.
- [10-2] SEND/RETURN not possible

*Point to be checked – Assys are classified with prefix.
[1-**] PNLA Assy, MAIN Assy, SW POWER SUPPLY
[2-**] MAIN Assy, PNLA Assy, CDCB Assy
[3-**] AINB Assy, MAIN Assy
[4-**] SEND Assy, MAIN Assy, HPPW Assy, HPJK Assy, HPJM Assy
[5-**] USBC Assy, MAIN Assy
[6-**] PNLA Assy, CDCB Assy
[7-**] PNLA Assy, CDCB Assy
[8-**] MAIN Assy
[9-**] CRFD Assy, PNLB Assy, PNLA Assy, MAIN Assy
[10-**] MAIN Assy, USBP Assy, USBC Assy

■ Measurement Conditoion

IN or OUT	Measure CH	IN CH	IN LEVEL	IN FREQUENCY	RL	Other Settings	Other Settings
IN	LINE	CH1/2/3/4	0 dB	1K	—	TRIM LEVEL VR Center	—
IN	PHONO	CH1/2/3/4	-40 dB	1K	—	TRIM LEVEL VR Center	—
IN	DIGITAL	CH1/2/3/4	0 dB	1K	—	TRIM LEVEL VR Center	—
IN	MIC	MIC1/2	-40 dB	1K	—	TRIM LEVEL VR Max	Center all EQs
IN	RETURN	RETURN	0 dB	1K	—	Level/Depth VR Center	—
IN	USB	USB1/2/3/4	0 dB	1K	—	TRIM LEVEL VR Center	—
IN	LAN	LINK	—	—	—	Connect with CDJ-2000NXS2	—
OUT	MASTER1/2	CH1/LINE	0 dB	1K	10 kΩ	MASTER LEVEL VR Center	Center all EQs/FADER Max
OUT	BOOTH	CH1/LINE	0 dB	1K	10 kΩ	BOOTH LEVEL VR Center	Center all EQs/FADER Max
OUT	REC	CH1/LINE	0 dB	1K	10 kΩ	—	Center all EQs/FADER Max
OUT	SEND	CH1/LINE	0 dB	1K	10 kΩ	—	Center all EQs/FADER Max
OUT	HP/HPmini	CH1/LINE	0 dB	1K	32 Ω	HP LEVEL Center	Center all EQs/FADER Max
OUT	DIGITAL OUT	CH1/LINE	0 dB	1K	75 Ω	—	Center all EQs/FADER Max

Measure the output diagnosis at the CH1 LINE input.

Switch Type Setting

HP MONO/STEREO	: STEREO	CROSS FADER ASSIGN	: CENTER
HP MIXING	: CENTER	SEND/RETURN	: 1/4" JACK
MIC SW	: OFF	RETURN TYPE	: INSERT
EQ CURVE	: EQ	CH CUE	: OFF
CH FADER CURVE	: CENTER	MASTER CUE	: ON
CROSS FADER CURVE	: CENTER		

UTILITY settings

Make sure to reset to the factory settings before you start checking.

[0] Prior Confirmation

[0-1] Checking Internal Cables

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Disconnection, breakage, or loose connection of internal cables	Relevant part	Check that all the cables are securely connected. Check that there is no breakage in the cables.	Securely connect the cables. If a cable is broken, replace it.	4.1 OVERALL WIRING DIAGRAM

[0-2] Prior confirmation of power

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Failure in the power source corresponding to the defective location	Power to the IC, etc. that is assumed to be defective	Check if there is a problem in power supplied to the location to be diagnosed.	If there is any problem, check the power source, referring to the "POWER BLOCK DIAGRAM" then repair.	4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS

[1] Failure in Startup

[1-1] The unit does not turn on, and the LED of the UTILITY (WAKE UP) button does not flash.

A V+12E power failure or PANEL UCOM (IC7001) startup error may be suspected.
If the LED of the UTILITY (WAKE UP) button flashes, see "5.3 INFORMATION ON POWER DIAGNOSTICS."

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Power failure, Wire defect	MAIN Assy CN4501-pin 1 (1-1)	Check for the V+12E power.	• If the V+12E power can be confirmed, go to [2]. • If the V+12E power cannot be confirmed, the SW POWER SUPPLY may be defective. Replace it.	4.4 POWER BLOCK DIAGRAM
2	Power failure	MAIN Assy CN4501-pin 4 (1-2)	Check for the V+5E power.	• If the V+5E power can be confirmed, go to [3]. • If the V+5E power cannot be confirmed, the IC4501 may be defective. Check for the status of soldering and replace it.	
3	Wire defect	PNLA Assy CN7001-pin 2 (1-4)	Check for the V+5E power.	• If the V+5E power can be confirmed, go to [4]. • If the V+5E power cannot be confirmed, the jumpers may be defective. Check for the status of soldering and replace it.	
4	Power failure	PNLA Assy IC7004-pin 5 (1-5)	Check for the V+3R3E power.	• If the V+3R3E power can be confirmed, go to [5]. • If the V+3R3E power cannot be confirmed, the parts may be defective. Check for the status of soldering and replace it.	
5	RESET signal error	PNLA Assy IC7001-pin 12 (1-6)	Check for the M16_XRST signal.	• If an output signal can be confirmed, go to [6]. • If an output signal cannot be confirmed, the RESET IC (IC7002) block may be defective. Check for the status of soldering and replace it.	————
6	16 MHz CLK error	PNLA Assy X7001-pin 3 (1-7)	Check for the 16M_CLK signal. (16-MHz oscillation waveform at 1.65 V center)	• If an output signal cannot be confirmed, the crystal (X7001) block may be defective. Check for the status of soldering and replace it.	————
7	PANEL UCOM defective	PNLA Assy	If the symptom persists after the above corrections.	The PANEL UCOM (IC7001) may be defective. Check for the status of soldering and replace it.	————

[2] Error Indications

[2-1] "ERROR 1xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• The clock generator cannot be reset. • The ADC/DAC cannot be initialized. • The DSP cannot be initialized. • The SRC_DSP cannot be initialized. • The USBC UCOM cannot be initialized.	MAIN UCOM (IC1) and its peripheral circuit	————	The MAIN UCOM (IC1) may be defective. Replace the MAIN Assy.	————

[2-2] "ERROR 2xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• FLASH ROM error • USB HOST startup error • I2C error • USB communication error • Communication error between the MAIN UCOM and USBC UCOM	USBC UCOM (IC2004) and its peripheral circuit	————	The USBC UCOM (IC2004) may be defective. Replace the MAIN Assy.	————

[2-3] "ERROR 3xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• SPI-BOOT error • SPI error • HPI error • SDRAM error	DSP (IC1001) and its peripheral circuit	————	The DSP (IC1001) may be defective. Replace the MAIN Assy.	————

[2-4] "ERROR 4xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• SPI-BOOT error • SPI error • I2C error	SRC_DSP (IC1501) and its peripheral circuit	————	The SRC_DSP (IC1501) may be defective. Replace the MAIN Assy.	————

[2-5] "ERROR 5xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• UART error	PANEL UCOM (IC7001) and its peripheral circuit	————	The PANEL UCOM (IC7001) may be defective. Replace the PNLA Assy.	————

[2-6] "ERROR 8xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• Startup error	IC other than those indicated in "Diagnostics Point" of [2–1] to [2–5], and its peripheral parts	————	The part on the MAIN Assy may be defective. Replace the MAIN Assy.	————

[2-7] "ERROR 9xxx" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• Communication error between the MAIN UCOM and PANEL UCOM upon their startup • X-PAD startup error • Improper ROM status of the PANEL UCOM	• PANEL UCOM (IC7001) and its peripheral circuit • X-PAD TOUCH CONTROLLER (IC4902)	————	The PANEL UCOM (IC7004) or X-PAD TOUCH CONTROLLER (IC4902) may be defective. In a case of ERROR 9000 or 9002, replace the PNLA Assy. In a case of ERROR 9001, replace the PNLA or CDCB Assy.	————

[2-8] "ERROR 0000" is displayed on the OLED.

A communication error of the corresponding IC was generated.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	• Timeout for startup of the MAIN UCOM	MAIN UCOM (IC1) and its peripheral circuit	————	The MAIN UCOM (IC1) may be defective. Replace the MAIN Assy.	————

[3] AUDIO INPUT

[3-1] No signal is input to the LINE, PHONO connectors.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	• Input selector switch (A, B, DIGITAL, LINE, PHONO, RETURN) • TRIM control • Channel Level Indicator	• Confirm on the screen that the selector is set properly. • Check if the Channel Level Indicator lights when an audio signal is input.	• If the Channel Level Indicator lights: There may be a failure on the OUTPUT side. Go to [4] AUDIO OUTPUT. • If the Channel Level Indicator does not light: Go to [1].	Operating instructions
1	Defective parts	AINB Assy CH*_LINE_L/R, CH*_PHONO_L/R Representative CH1 3-1_LINE 3-1_PHONO	[Check of the input before the RELAY block] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is input, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [2].	————
2	Loose connection /defective parts	AINB Assy CH*_TRIM_OUT_L/R Representative CH1 3-2	[Check of the input after the TRIM circuit] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is input, a TRIM circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [3].	————

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
3	Defective parts	AINB Assy CH*_L+/L-/R+/R- Representative CH1 3-3	[Check of the input before the ADC circuit] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is input, an analog circuit must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [4].	————
4	Defective parts	AINB Assy IC5307 (CH1) IC5507 (CH2) IC5907 (CH3) IC5509 (CH4) Representative CH1 3-4	[Check of the input after the ADC circuit] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is input, a CH*_ADC signal circuit or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of IC5306, IC5506, IC5706 or IC5906, or replace it. • If an audio signal is input, go to [5].	————
5	Loose connection /defective parts	AINB Assy SEL_CH*_A/TC IC5307 (CH1) - pin 6 IC5507 (CH2) - pin 6 IC5907 (CH3) - pin 6 IC5509 (CH4) - pin 6 Representative CH1 3-5	[Check of the switching IC] Check if the SEL_CH*_A/TC signal is Low.	• If it is Low, go to [6]. • If it is High, a SEL_CH*_A/TC signal route or the MAIN Assy must be improperly soldered or defective. Check for the soldering status of part, or replace the MAIN Assy.	————
6	Defective parts	AINB Assy CH*_ANA_DATA CN5002 (CH1) - pin 38 CN5002 (CH2) - pin 32 CN5002 (CH3) - pin 14 CN5002 (CH4) - pin 8 Representative CH1 3-6	[Check of the input after the switching IC] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is input, the IC5307 (CH1), IC5507 (CH2), IC5907 (CH3) or IC5509 (CH4) must be improperly soldered or defective. Check for the soldering status of it, or replace it. • If an audio signal is input, go to [7].	————
7	Defective parts	MAIN Assy SEL_CH*_A/D IC1008 (CH1) - pin 6 3-7-1 IC1005 (CH2) - pin 6 3-7-2 IC1006 (CH3) - pin 6 3-7-3 IC1007 (CH4) - pin 6 3-7-4	[Check of the switching IC] Check if the SEL_CH*_A/D signal is Low.	• If it is Low, check for the soldering status of between IC1008 (CH1) pin 5, IC1005 (CH2) pin 5, IC1006 (CH3) pin 5, IC1007 (CH4) pin 5 and IC1001(DSP), or replace the MAIN Assy. • If it is High, a SEL_CH*_A/D signal route or the MAIN Assy must be improperly soldered or defective. Check for the soldering status of part, or replace the MAIN Assy.	————

[3-2] No signal is input to the DIGITAL connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	• Input selector switch (A, B, DIGITAL, LINE, PHONO, RETURN) • Channel Level Indicator	• Confirm on the screen that the selector is set properly. • Check if the Channel Level Indicator lights when an audio signal is input.	• If the Channel Level Indicator lights: There may be a failure on the OUTPUT side. Go to [4] AUDIO OUTPUT. • If the Channel Level Indicator does not light: Go to [1].	Operating instructions
1	Defective parts	MAIN Assy IC4001 (CH1) - pin 2 IC4101 (CH2) - pin 2 IC4201 (CH3) - pin 2 IC4301 (CH4) - pin 2 Representative CH1 3-9	[Check of the DIGITAL input] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is input, the IC4001 (CH1), IC4101(CH2), IC4201 (CH3), IC4301 (CH4) or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of it, or replace it. • If an audio signal is input, go to [2].	————
2	Defective parts	MAIN Assy IC4010 (CH1) - pin 9 IC4107 (CH2) - pin 9 IC4207 (CH3) - pin 9 IC4307 (CH4) - pin 9 Representative CH1 3-10	[Check of the DIGITAL input] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is input, the IC4002 (CH1), IC4102 (CH2), IC4202 (CH3), IC4302 (CH4) or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of it, or replace it. • If an audio signal is input, go to [3].	————
3	Defective parts	MAIN Assy SEL_CH*_A/D IC1008 (CH1) - pin 6 3-7-1 IC1005 (CH2) - pin 6 3-7-2 IC1006 (CH3) - pin 6 3-7-3 IC1007 (CH4) - pin 6 3-7-4	[Check of the switching IC] Check if the SEL_CH*_A/D signal is High.	• If it is Low, check for the soldering status of between IC1008 (CH1) pin 5, IC1005 (CH2) pin 5, IC1006 (CH3) pin 5, IC1007 (CH4) pin 5 and IC1001(DSP), or replace the MAIN Assy. • If it is Low, a SEL_CH*_A/D signal route or the MAIN Assy must be improperly soldered or defective. Check for the soldering status of part, or replace the MAIN Assy.	————

[3-3] No signal is input to the MIC1/MIC2 connectors.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	• OFF, ON, TALK OVER selector switch • Master Level Indicator	• Confirm on the screen that the selector is set properly. • Check if the Master Level Indicator lights when an audio signal is input.	• If the Master Level Indicator lights: There may be a failure on the OUTPUT side. Go to [4] AUDIO OUTPUT. • If the Master Level Indicator does not light: Go to [1].	Operating instructions
1	Defective parts	AINB Assy MIC*_LEVEL Representative MIC1 3-13	[Check of the corresponding input] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is input, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [2].	————
2	Loose connection /defective parts	AINB Assy MIC*_ADC_IN Representative MIC1 3-14	[Check of the input after the TRIM circuit] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is input, a TRIM circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [3].	————
3	Defective parts	AINB Assy CN5002 - pin 40 3-15	[Check of the input after the ADC circuit] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is input, the MIC_ADC or its peripheral circuit must bedefective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [4].	————
4	Loose connection	MAIN Assy CN4508 - pin 1 3-16	[Check of the input after the ADC circuit] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If an audio signal is input, the DSP (IC1001) may be defective. Replace the MAIN Assy. • If no audio signal is input, a jumper wire may be defective. Replace it.	————

[3-4] No signal is input to the RETURN connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	• SEND/RETURN (1/4" JACK, ⇢) selector switch • SEND/RETURN ON/OFF button • SEND/RETURN LEVEL control	• Check that the type for SEND/RETURN selector switch is set to "1/4" JACK." • Check that the SEND/RETURN ON/OFF button is set to ON. • Check that the SEND/RETURN LEVEL control is set to other than MIN. *No signal is output from the RETURN connector if a signal is input only to the R channel. Even when the R channel is to be diagnosed, be sure to input a signal to the L channel, as well.	————	————
1	Defective parts	AINB Assy RETUEN_L/R 3-17	[Check of the corresponding input] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is input, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is input, go to [2].	————
2	Defective parts	AINB Assy CN5002 - pin 2 3-18	[Check of the input after the ADC circuit] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is input, the RETURN_ADC signal or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of IC5102 or its peripheral circuit, or replace it. • If an audio signal is input, go to [3].	————
3	Loose connection	MAIN Assy CN4508 - pin 39 3-19	[Check of the input after the ADC circuit] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If an audio signal is input, the DSP (IC1001) may be defective. Replace the MAIN Assy. • If no audio signal is input, a jumper wire may be defective. Replace it.	————

[4] AUDIO OUTPUT

[4-1] No signal is output from the MASTER1/MASTER2 connectors.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Output Confirmation	MASTER1 / MASTER2	Identify the connector(s) that does (do) not output signals.	• If neither MASTER 1 nor 2 connector outputs, go to [2]. • If only the MASTER 1 connector does not output, go to [6]. • If only the MASTER2 connector does not output, go to [7].	————
2	Defective parts	MAIN Assy DAC_RESET IC3201 - pin 27 4-1	[Checking the RESET signal] Check for the DAC_RESET signal level is High.	• If it is High, go to [3]. • If it is Low, the DAC_RESET signal must be improperly soldered or defective. Check for the soldering status of part, or replace it.	————

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
3	Defective parts	MAIN Assy IC3201 - pins 28 to 30 4-2 4-3 4-4	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy. • If an audio signal is output, go to [4].	————
4	Defective parts	MAIN Assy IC3201 - pins 20, 21, 10, 11 4-5 4-6 4-7 4-8	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3201 or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [5].	————
5	Defective parts	MAIN Assy IC3202 - pins 1, 7, IC3203 - pins 1, 7 4-9 4-10 4-11 4-12	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC3202 or IC3203, or replace it. • If an audio signal is output, go to [6].	————
6	Defective parts	MAIN Assy IC3204 - pins 1, 7, IC3205 - pins 1, 7 4-13 4-14 4-15 4-16	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, RY3201, RY3202 or its peripheral circuit must be improperly soldered or defective. Replace it. • If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC3204 or IC3205, or replace it.	————
7	Defective parts	MAIN Assy IC3403 - pins 1, 7 4-17 4-18	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, a jack or its peripheral circuit must be improperly soldered or defective. Replace it. • If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC3403, or replace it.	————

[4-2] No signal is output from the REC connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective parts	MAIN Assy DAC_RESET IC3401 - pin 5 4-19	[Checking the RESET signal] Check for the DAC_RESET signal level is High.	• If it is High, go to [2]. • If it is Low, the DAC_RESET signal must be improperly soldered or defective. Replace it.	————
2	Defective parts	MAIN Assy IC3401 - pins 1 to 4 4-20 4-21 4-22 4-23	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy. • If an audio signal is output, go to [3].	————
3	Defective parts	MAIN Assy IC3401 - pins 11, 10 4-24 4-25	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3401 or its peripheral circuit may be defective. Replace it. • If an audio signal is output, go to [4].	————
4	Defective parts	MAIN Assy IC3402 - pins 1, 7 4-26 4-27	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, a jack or its peripheral circuit must be improperly soldered or defective. Replace it. • If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC3402, or replace it.	————

[4-3] No signal is output from the BOOTH connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective parts	MAIN Assy DAC_RESET IC3601 - pin 5 4-28	[Checking the RESET signal] Check for the DAC_RESET signal level is High.	• If it is High, go to [2]. • If it is Low, the DAC_RESET signal must be improperly soldered or defective. Replace it.	————
2	Defective parts	MAIN Assy IC3601 - pins 1 to 4 4-29 4-30 4-31 4-32	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy. • If an audio signal is output, go to [3].	————
3	Defective parts	MAIN Assy IC3601 - pins 12 to 9 4-33 4-34 4-35 4-36	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3601 or its peripheral circuit may be defective. Replace it. • If an audio signal is output, go to [4].	————
4	Defective parts	MAIN Assy IC3602 - pins 1, 7, IC3603 - pins 1, 7 4-37 4-38 4-39 4-40	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3602, IC3603 or its peripheral circuit may be defective. Check for the soldering status of the IC3602, IC3603, or replace it. • If an audio signal is output, go to [5].	————

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
5	Defective parts	MAIN Assy IC3604 - pins 1, 7, IC3605 - pins 1, 7 4-41 4-42 4-43 4-44	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, a jack or its peripheral circuit must be improperly soldered or defective. Replace it. • If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC3604 or IC3605, or replace it.	————

[4-4] No signal is output from the SEND connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective parts	MAIN Assy DAC_RESET IC3801 - pin 5 4-45	[Checking the RESET signal] Check for the DAC_RESET signal level is High.	• If it is High, go to [2]. • If it is Low, the DAC_RESET signal must be improperly soldered or defective. Replace it.	————
2	Defective parts	MAIN Assy IC3801 - pins 1 to 4 4-46 4-47 4-48 4-49	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy. • If an audio signal is output, go to [3].	————
3	Defective parts	MAIN Assy CN3801 - pins 5, 8 4-50 4-51	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3801 or its peripheral circuit may be defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [4].	————
4	Defective parts	SEND Assy CN6001 - pins 5, 8 4-52 4-53	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, jumper wire may be defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [5].	————
5	Defective parts	SEND Assy IC6001 - pins 1, 7 4-54 4-55	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, a jack or its peripheral circuit must be improperly soldered or defective. Replace it. • If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC6001, or replace it.	————

[4-5] No signal is output from the PHONES connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Output Confirmation	HP / HP_MINI	Identify the connector(s) that does (do) not output signals.	• If neither HP nor HP_MINI connector outputs, go to [2]. • If only the HP connector does not output, go to [7]. • If only the HP_MINI connector does not output, go to [7].	————
2	Defective parts	MAIN Assy DAC_RESET IC3901 - pin 27 4-56	[Checking the RESET signal] Check for the DAC_RESET signal level is High.	• If it is High, go to [3]. • If it is Low, the DAC_RESET signal must be improperly soldered or defective. Check for the soldering status of part, or replace it.	————
3	Defective parts	MAIN Assy IC3901 - pins 1 to 3 4-57 4-58 4-59	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy. • If an audio signal is output, go to [4].	————
4	Defective parts	MAIN Assy IC3901 - pins 12 to 9 4-61 4-62 4-63 4-64	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3901 or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [5].	————
5	Defective parts	MAIN Assy CN3901 - pins 7, 5 4-65 4-66	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, the IC3902 or its peripheral circuit must be improperly soldered or defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [6].	————
6	Loose connection	HPPW Assy CN8201 - pins 8, 10 4-67 4-68	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, a jumper wire may be defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [7].	————
7	Defective parts	HPPW Assy IC8202 - pins 1, 7 4-69 4-70	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC8202 or its peripheral circuit, or replace it. • If an audio signal is output, go to [8].	————

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
8	Loose connection /defective parts	HPPW Assy CN8202 - pins 5, 7 4-71 4-72	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, a jack or HPJK jumper wire must be improperly soldered or defective. Replace it. • If no audio signal is output, a relay circuit must be improperly soldered or defective. Check for the soldering status of the RY8201 or its peripheral circuit, or replace it.	————
9	Defective parts	HPPW Assy IC8201 - pins 1, 7 4-73 4-74	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If no audio signal is output, an analog circuit at a previous stage must be improperly soldered or defective. Check for the soldering status of the IC8201 or its peripheral circuit, or replace it. • If an audio signal is output, go to [10].	————
10	Loose connection /defective parts	HPPW Assy CN8202 - pins 1, 3 4-75-1 4-75-2	[Check of the audio output] Check the audio signal (sine wave) in the above-mentioned signal path.	• If an audio signal is output, a jack or HPJK jumper wire must be improperly soldered or defective. Replace it. • If no audio signal is output, a relay circuit must be improperly soldered or defective. Check for the soldering status of the RY8202 or its peripheral circuit, or replace it.	————

[4-6] No signal is output from the DIGITAL MASTER OUT connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective parts	MAIN Assy DOUT_SRC/DIT_XRST 4-76	[Checking the RESET signal] Check for the DOUT_SRC/DIT_XRST signal level is High.	• If it is High, go to [2]. • If it is Low, the DOUT_SRC/DIT_XRST signal must be improperly soldered or defective. Check for the soldering status of part, or replace it.	————
2	Defective parts	MAIN Assy IC4401 - pins 7 to 9 4-77 4-78 4-79	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy. • If an audio signal is output, go to [3].	————
3	Defective parts	MAIN Assy IC4402 - pins 1 to 4 4-80 4-81 4-82 4-83	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the IC4401 or its peripheral circuit may be defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [4].	————
4	Defective parts	MAIN Assy IC4402 - pin 16 4-84	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the IC4402 or its peripheral circuit may be defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [5].	————
5	Defective parts	MAIN Assy R4424 4-85	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the IC4403 or its peripheral circuit may be defective. Check for the soldering status of part, or replace it. • If an audio signal is output, go to [6].	————
6	Defective parts	MAIN Assy R4427 4-86	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the T4401 or its peripheral circuit may be defective. Check for the soldering status of part, or replace it.	————

[5] DVS

[5-1] A device connected to the USB connector cannot be recognized.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	• Input selector switch (A, B, DIGITAL, LINE, PHONO, RETURN) • TRIM control • Channel Level Indicator	• Check that the Input selector switch is set to A or B. • Install the latest version of the driver. • Check that the settings for the DJM-900NXS2 Utility of the PC are correct.	If there is any problem in the checked items, make corrections.	Operating instructions
1	Loose connection	MAIN Assy USBA: CN2 - pins 2 to 4 5-1 5-2 5-3 USBB: CN2 - pins 7 to 9 5-4 5-5 5-6	[Power] Check that the C voltage is about 5 V (4.75–5.25) while the unit is connected with a PC. [D±USB] Check that a waveform can be observed while the unit is connected with a PC.	[Power] • If the voltage is not normal, a jumper wire or USBB Assy may be defective. Replace it. • If the voltage is normal, go to [2]. [D±USB] • If the voltage is not normal, a jumper wire or USBB Assy may be defective. Replace it. • If the above items are OK, go to [2].	————
2	Defective parts	MAIN ASSY USBA: IC14 - pin 4 5-7 USBB: IC15 - pin 4 5-8	Check that the C voltage is about 5 V (4.75–5.25) while the unit is connected with a PC.	• If the voltage is normal, the MAIN UCOM (IC1) may be defective. Replace it. • If the voltage is not normal, a part may be defective. Replace it.	————

[6] Indicator (OLED/LED) not lit

PANEL UCOM (IC7001) controls the OLED/LED.

[6-1] The OLED does not light.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Power failure	PNLA Assy CN7002 - pin 8 6-1	Check for the V+15OLED power.	• If the V+15OLED power cannot be confirmed, go to [2]. • If the V+15OLED power can be confirmed, go to [4].	4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS
2	Power failure / wire defect	MAIN Assy CN4505 - pin 12 6-2	Check for the V+15OLED power.	• If the V+15OLED power can be confirmed, a jumper wire may be defective. Replace it. • If the V+15OLED power cannot be confirmed, the IC4512 must be improperly soldered or defective. Replace it.	4.1 OVERALL WIRING DIAGRAM 4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS
3	Power failure	PNLA Assy IC7003 - pin 5 6-3	Check for the V+3R3OLED power.	• If the V+3R3OLED power can be confirmed, go to [4]. • If the V+3R3OLED power cannot be confirmed, the IC7003 must be improperly soldered or defective. Replace it.	4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS
4	Wire defect	CDCB Assy CN4906 - pin 24 6-4 [V+15OLED] CN4906 - pin 23 6-5 [V+3R3OLED]	Check for each power.	• If each power can be confirmed, go to [5]. • If each power cannot be confirmed, a jumper wire may be defective. Replace it.	4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS
5	Signal errors	PNLA Assy CN7004 • Common to the upper and lower OLEDs Pin 4: OLED_SCL 6-6 Pin 5: OLED_MOSI 6-7 Pin 9: OLED_XRST 6-8 • Each OLED Pin 8: OLED_CS1 6-9 Pin 10: OLED_A0_1 6-10 Pin 11: OLED_CS2 6-11 Pin 7: OLED_A0_2 6-12	Check the output signal and wire connection of the OLED communication line in the PNLA Assy. • Common to the upper and lower OLEDs OLED_SCL, OLED_MOSI, OLED_XRST • Upper OLED OLED_CS1, OLED_A0_1 • Lower OLED OLED_CS2, OLED_A0_2	• If no signal is output, check the mounting status of the PANEL UCOM (IC7001). If it is properly mounted, the port may be damaged. Replace it. If wire connection is improper, resolder it. • If the signal is normal, go to [6].	————
6	Signal errors	CDCB Assy CN4906 • Common to the upper and lower OLEDs Pin 21: OLED_SCL 6-13 Pin 20: OLED_MOSI 6-14 Pin 16: OLED_XRST 6-15 • Each OLED Pin 17: OLED_CS1 6-16 Pin 15: OLED_A0_1 6-17 Pin 14: OLED_CS2 6-18 Pin 18: OLED_A0_2 6-19	Check the output signal and wire connection of the OLED communication line in the CDCB Assy. • Common to the upper and lower OLEDs OLED_SCL, OLED_MOSI, OLED_XRST • Upper OLED OLED_CS1, OLED_A0_1 • Lower OLED OLED_CS2, OLED_A0_2	• If no signal is output, the wire may be in failure. Replace it. • If the signal is normal, go to [7].	————
7	Defective OLED	CDCB Assy	Check the connection of the OLED wire.	Disconnect the OLED wire, then reconnect it. If the OLED does not light, the part may be defective. Replace it.	————

[7] X-PAD

PANEL UCOM (IC7001) controls the X-PAD.

[7-1] Pressing on the X-PAD not be detected

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Loose connection	PNLA Assy CDCB Assy	Check for loose connection on the signal line from the power source and PANEL UCOM (IC7001) to the X-PAD TOUCH CONTROLLER (IC4902).	• If any connection on the power or signal line is improper, correct it. • If the signal is normal, go to [2].	————

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
2	Signal errors	PNLA Assy CN7004 Pin 12 7-1 Pin 13 7-2 Pin 14 7-3 Pin 15 7-4 Pin 17 7-5 Pin 18 7-6 Pin 19 7-7	Check for input and output signals of the communication line of the X-PAD TOUCH CONTROLLER (IC4902) in the PNLA Assy when power is supplied and the unit is turned on. • V+3R3REF (power) • CDC_XRST • CDC_XINT • CDC_CS • CDC_SCK • CDC_SO • CDC_SI	• If there is no signal when the unit is turned on, check the mounting status of PANEL UCOM (IC7001). If there is no problem, the port may be defective. Replace it. • If the signal is normal, go to [3].	4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS
3	Signal errors	CDCB Assy CN4906 Pin 13 7-8 Pin 12 7-9 Pin 11 7-10 Pin 10 7-11 Pin 8 7-12 Pin 7 7-13 Pin 6 7-14	Check for input and output signals of the communication line of the X-PAD TOUCH CONTROLLER (IC4902) in the CDCB Assy when power is supplied and the unit is turned on. • V+3R3 (power) • CDC_XRST • CDC_XINT • CDC_CS • CDC_SCK • CDC_SO • CDC_SI	• If there is no signal when the unit is turned on, the wires may be in failure. Replace them. • If the signal is normal, go to [4].	4.4 POWER BLOCK DIAGRAM 5.3 INFORMATION ON POWER DIAGNOSTICS
4	Touch sensor IC defective	PNLA Assy (the same points checked in No.2)	Check that the input and output signals of the touch sensor IC communication line in the PNLA Assy with the X-PAD touched in normal operation. (the same points checked in No.2)	If there are no input or output signals, the X-PAD TOUCH CONTROLLER (IC4902) may be defective. As this part cannot be replaced, replace the Assy.	————

[8] LAN

[8-1] No LAN communication

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	————	Perform the Mode 13: Device Test in Test mode, and check if normal status is displayed for LAN, MACAd, IPAdd, and Subn.	• If all show normal status, go to [2]. • If LAN is NG, go to [3]. If MACAd, IPAdd, and Subn are abnormal, data stored in the FLASH (IC8) for the MAIN UCOM may be damaged. Replace the entire MAIN Assy. Note: The FLASH (IC8) is not a service part for MAC address administration. Replace it with the MAIN Assy.	6.1 TEST MODE
1	Defective parts	MAIN Assy LAN_XRST 8-1	[Checking the RESET signal] Check for the LAN_XRST signal level is High.	• If it is High, go to [2]. • If it is Low, the LAN_XRST signal must be improperly soldered or defective. Check for the soldering status of it.	————
2	Defective parts	MAIN Assy RMII_CLK 8-2	[Checking the CLK signal] Check that the 50-MHz RMII_CLK signal is emitted at 1.65 V center.	• If it is, go to [3]. • If it is not, soldering status of parts in the RMII_CLK signal path may be improper. Check the soldering status of X2 and its periphery.	————
3	Defective parts	MAIN Assy IC16 - pins 7, 18 8-3 8-4	[Check of the communication signal] Except when the signal is fixed at Low or High, check that the circuits in the above-mentioned signal path function properly.	• If the signal is abnormal, any part in the signal path may be in failure. Check the soldering status. • If the signal is normal, go to [4].	————
4	Defective parts	MAIN Assy T1: pins 4, 5 8-5 8-6 T2: pins 4, 5 8-7 8-8	[Check of the communication signal] Except when the signal is fixed at Low or High, check that the circuits in the above-mentioned signal path function properly.	• If the signal is abnormal, any part in the signal path may be in failure. Check the soldering status. • If the signal is normal, go to [5].	————
5	Defective parts	MAIN Assy	If the symptom persists after the above corrections.	LAN PHY (IC16) may be defective. Replace it.	————

[9] Crossfader

[9-1] Abnormal function of the crossfader

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Calibration	Calibration	Perform calibration in the Test mode to check if the crossfader functions properly.	If calibration is not possible or fails, go to [9-2].	6.1 TEST MODE

[9-2] The crossfader is inoperable.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	The CRFD Assy is not functioning.	CRFD Assy [Power supply] V+3R3REF IC4001 - pin 5 [GND] GNDREF IC4001 - pin 5 [AD_CRS_FADER signal] IC4001 - pin 4, R4002, R4003 9-1	[Power] Check that AC power is supplied properly. [GND] Check that GNDREF is connected with GNDD in the MAIN Assy. [AD_CRS_FADER signal] Check the AD_CRS_FADER signal at each diagnostic point while operating the crossfader.	• [Power] If there is any abnormality, soldering of IC4001 may be defective. If the symptom persists after resoldering the defective part, go to [2]. • [GND] If there is any abnormality, soldering of IC4001 may be defective. If the symptom persists after resoldering the defective part, go to [2]. • [AD_CRS_FADER signal] If no signal is output, soldering of the resistor or IC4001 may be defective. Repair or replace the part with a good one. • If no problem is found with the above parts, go to [2].	————
2	Loose connection	PNLB Assy [Power supply] V+3R3REF_L CN7502 - pin 3 [GND] GNDD_REF_L CN7502 - pin 1 [CROSS_FADER signal] CN7502 - pin 2 same as 9-1	[Power] Check that AC power is supplied properly. [GND] Check that GNDD_REF_L is connected with GNDREF in the CRFD Assy. [CROSS_FADER signal] Check the CROSS_FADER signal at the diagnostic point while operating the crossfader.	• [Power] If power is supplied properly, there may be a break in a cable. If power is not supplied properly, go to [3]. • [GND] If connection is properly made, there may be a break in a cable. If connection is not properly made, go to [3]. • [CROSS_FADER signal] If no signal is output, there may be a break in a cable. Replace the part. • If the symptom persists after the above corrections, go to [3].	————
3	Loose connection	PNLB Assy [Power supply] V+3R3REF_L CN7501 - pin 28 [GND] GNDD_REF_L CN7501 - pin 21 [CROSS_FADER signal] CN7501 - pin 27 same as 9-1	[Power] Check that AC power is supplied properly. [GND] Check that GNDD_REF_L is connected with GNDD_REF_L in the PNLA Assy. [CROSS_FADER signal] Check the CROSS_FADER signal at the diagnostic point while operating the crossfader.	• [Power] If power is supplied properly, there may be a break in a cable inside the board. If power is not supplied, go to [4]. • [GND] If connection is proper, there may be a break in a cable inside the board. If connection is not properly made, go to [4]. • [CROSS_FADER signal] If no signal is output, there may be a break in a cable inside the board. Replace the Assy. • If the symptom persists after the above corrections, go to [4].	————
4	Loose connection	PNLA Assy [Power supply] V+3R3REF_L CN7003 - pin 28 [GND] GNDD_REF_L CN7003 - pin 21 [CROSS_FADER signal] CN7003 - pin 27 same as 9-1	[Power] Check that AC power is supplied properly. [GND] Check that GNDD_REF_L is connected with GNDD_REF_L in the PNLB Assy. [CROSS_FADER signal] Check the CROSS_FADER signal at the diagnostic point while operating the crossfader.	• [Power] If power is supplied properly, there may be a break in a cable. If power is not supplied, there may be a break in a cable inside the board. • [GND] If power is supplied properly, there may be a break in a cable. If power is not supplied, there may be a break in a cable inside the board. • [CROSS_FADER signal] If no signal is output, there may be a break in a cable inside the board. Replace the Assy. • If the symptom persists after the above corrections, go to [5].	————
5	Loose connection / PANEL UCOM defective	PNLA Assy [CROSS_FADER signal] R7007, IC7001 - pin 87 same as 9-1	[CROSS_FADER signal] Check the CROSS_FADER signal at the diagnostic point while operating the crossfader.	• [CROSS_FADER signal] If no signal is output, soldering of the resistor or PANEL UCOM (IC7001) may be defective. Repair or replace the part with a good one.	————

[10] USBC

[10-1] A connected device does not recognize the unit.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Loose connection	USBP Assy CN4851 - pins 5, 6 10-1	Check if an approximately 12-V signal exists.	• If a 12-V signal exists, go to [2]. • If the signal is not 12 V, the cable between the MAIN and USBP Assys may be in failure. Replace it.	————
2	Defective parts	USBP Assy IC4852 - pins 2, 3 10-2	Check if an approximately 5.2-V signal exists.	• If a 5.2-V signal exists, go to [3]. • If the signal is not 5.2 V, IC4851 may be in failure. Replace it.	————
3	Defective parts	USBP Assy USBPSW_FA IC4852 - pin 8 10-3	[Checking the communication signal] Check for the USBPSW_FA signal level is High.	• If it is High, go to [4]. • If it is Low, the USBPSW_FA signal route must be improperly soldered or defective. Check for the soldering status of part, or replace it.	————
4	Defective parts	USBP Assy USBPSW_EN IC4852 - pin 4 10-4	[Checking the communication signal] Check for the USBPSW_EN signal level is High.	• If it is High, go to [5]. • If it is Low, the USBPSW_EN signal route must be improperly soldered or defective. Check for the soldering status of part, or replace it.	————
5	Defective parts	————	If the symptom persists after the above corrections.	The connected device may be in failure.	————

[10-2] SEND/RETURN not possible

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
0	Prior Confirmation	• SEND/RETURN (1/4" JACK, ⇐USB⇒) selector switch • SEND/RETURN ON/OFF button • SEND/RETURN LEVEL control	• Check that the type for SEND/RETURN selector switch is set to "⇐USB⇒." • Check that the SEND/RETURN ON/OFF button is set to ON. • Check that the SEND/RETURN LEVEL control is set to other than MIN.	————	————
1	Defective parts	MAIN Assy USBC_SRC_XRST 10-5	[Checking the RESET signal] Check for the USBC_SRC_XRST signal level is High.	• If it is High, go to [2]. • If it is Low, the USBC_SRC_XRST signal route must be improperly soldered or defective. Check for the soldering status of part, or replace it.	————
2	Defective parts	MAIN Assy IC2008: pins 7 to 9 10-6 10-7 10-8 IC2009: pins 12, 13 10-9 10-10	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If an audio signal is output, go to [3]. • If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy.	————
3	Defective parts	MAIN Assy IC2008: pins 12 to 14 10-11 10-12 10-13 IC2009: pins 7 to 9 10-12 10-13 10-14	[Check of the audio output] Except when the audio signal is fixed at Low or High, check the audio signal in the above-mentioned signal path.	• If no audio signal is output, the DSP (IC1001) or AUDIO_CLK (IC3002) may be defective. Replace the MAIN Assy.	————

5.3 INFORMATION ON POWER DIAGNOSTICS

Power monitoring circuit

The PANEL UCOM (IC7001) of this unit always monitors various power voltages and will shut the secondary power source off immediately once an error is detected.
In such a case, the LED of the QUANTIZE (WAKE UP) button flashes.

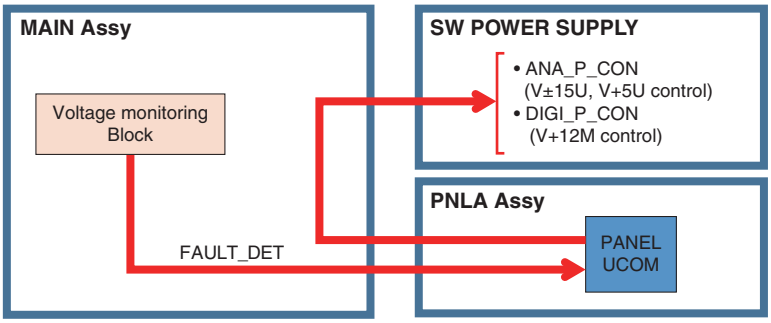
Monitored power voltages

The name of a power source denotes its voltage. (Example: V+3R3A, denoting 3.3 V)

V+15A	V+15OLED	V+3R3A	V+5A	V+5A_DACREF
V-15A	V+1R285D	V+2R5D	V+3R3D	V+3R3D_DIGI
V+3R3REF	V+3R8D	V+5D	V+7HP	V-7HP

Outline of the detection system

- An error-alert signal (FAULT_DET) is issued by the voltage-monitoring block.
- The PANEL UCOM issues a signal for interrupting SW POWER supply (ANA_P_CON, DIGI_P_CON) if an error is detected.



Diagnostic procedure

Error Detection OFF mode

You can turn the unit on even during a shutoff of the secondary power triggered by a voltage error, by entering Error Detection OFF mode. To enter this mode, while holding the MIDI ON/OFF buttons and SOUND COLOR FX (DUB ECHO) button pressed simultaneously, press the POWER button (to set it to ON).

Note: This mode is provided only to identify power in failure.
Be careful not to keep the power on any longer than necessary. Having the power on in such condition may damage the IC.

① With the unit turned off, check if the monitored voltages are short-circuited with GND.
② While monitoring each voltage, turn the unit on in Error Detection OFF mode, then check for an error.

Note: Limit the duration of Error Detection OFF mode to no more than 10 seconds at a time.

5.4 ERROR INDICATIONS

Normal startup

Error code	Cause	Item to be checked
ERROR 1xxx	MAIN UCOM • The clock generator cannot be reset. • The ADC/DAC cannot be initialized. • The DSP cannot be initialized. • The SRC_DSP cannot be initialized. • The USBC UCOM cannot be initialized.	See [2-1] in "5.2 TROUBLESHOOTING."
ERROR 2xxx	USBC UCOM • FLASH ROM error • USB HOST startup error • I2C error • USB communication error • Communication error between the MAIN UCOM and USBC UCOM	See [2-2] in "5.2 TROUBLESHOOTING."
ERROR 3xxx	DSP • SPI-BOOT error • SPI error • HPI error • SDRAM error	See [2-3] in "5.2 TROUBLESHOOTING."
ERROR 4xxx	SRC_DSP • SPI-BOOT error • SPI error • I2C error	See [2-4] in "5.2 TROUBLESHOOTING."
ERROR 5xxx	PANEL UCOM • UART roor	See [2-5] in "5.2 TROUBLESHOOTING."
ERROR 8001	Timeout for startup of the clock generator	See [2-6] in "5.2 TROUBLESHOOTING."
ERROR 8002	Timeout for startup of the ADC/DAC	
ERROR 8004	Timeout for startup of the DSP	
ERROR 8008	Timeout for startup of the SRC_DSP	
ERROR 8010	Timeout for startup of the USBC UCOM	
ERROR 8xxx	Timeout for startup of the clock generator, ADC DAC, DSP, SRC_DSP, and/or USBC UCOM	
ERROR 9000	Communication error between the MAIN UCOM and PANEL UCOM upon their startup	See [2-7] in "5.2 TROUBLESHOOTING."
ERROR 9001	X-PAD startup error	
ERROR 9002	Improper ROM status of the PANEL UCOM	
ERROR 0000	Timeout for startup of the MAIN UCOM	See [2-8] in "5.2 TROUBLESHOOTING."

Updating start

Error code	Cause	Item to be checked
E01	File error • No UPD file is found. • Multiple UPD files are found. • The file size is larger than the maximum theoretical value.	Check that the UPD file is a proper one.
E02	File check error • Model name error • CRC error	
E10	USBC UCOM error • Communication error • FLASH rewriting error	See [2-2] in "5.2 TROUBLESHOOTING."
E20	PANEL UCOM error • Communication error • FLASH rewriting error	See [2-7] in "5.2 TROUBLESHOOTING."
E40	MAIN UCOM error • FLASH rewriting error	See [2-1] in "5.2 TROUBLESHOOTING."
Ex0	Combination of errors E10, E20, and E40	See the item corresponding to each error in "5.2 TROUBLESHOOTING."

5.5 CONNECTION CHECK WITH EACH INTERFACE

■ USB

[1. USB B connector]

Whether communication between the PC connected via the USB B connector and this unit is properly performed or not can be confirmed on the PC.
Note: The driver software must be installed beforehand.

• For checking, use the USB connection indicator of the unit.

Lit : The indicator lights when the driver is recognized after connection with the PC is established.
Flashing : If the driver cannot be recognized after PC connection, the LED flashes (Intervals: 500 ms [lit: 250 ms/unlit: 250 ms]).
Unlit : When communication between the PC and the unit is interrupted, the LED goes dark.

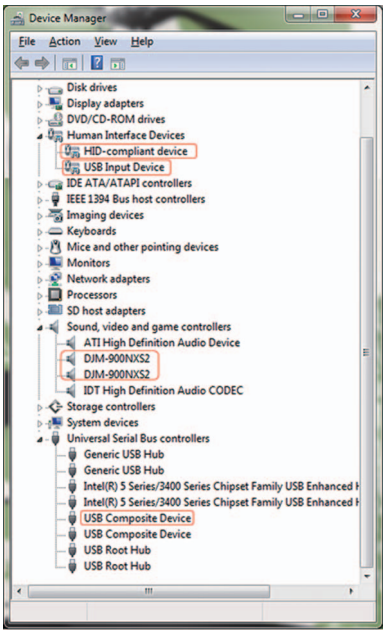
• Use Device Manager for checking.

If the PC and this unit are properly connected, the components of this unit are added in Device Manager (under Hardware) as devices. If all components are properly displayed, the PC and this unit are properly communicating via the USB connector.

In a case of Windows 7:
Start, Control Panel, System, Hardware, then Device Manager
Devices to be added:

- Universal Serial Bus controllers
  - USB Composite Device
- Under “Sound, video and game controllers”
  - DJM-900NXS2
  - DJM-900NXS2
- Human Interface Device
  - HID Conformity Device
  - USB Input Device

A communication check may be easily performed if connection is made with Device Manager displayed on the PC screen.



[2. USB A connector]

Check that communication between this unit and the external device connected via the USB A connector is properly performed.
Note: A USB memory device is required for checking.

• For checking, use the USB connection indicator of the unit.

Unlit : No USB memory device is plugged in.
Flashing : The unit is in the process of recognizing the connected USB memory device.
(Flashing intervals: 500 ms [lit for 250 ms, unlit for 250 ms])
Lit : The USB memory device was properly recognized.

■ LAN

[3. LINK]

You can check from this unit if the mixer can properly communicate via LAN.
*Use a Category 5 cable or a cable with higher specifications for connection.
Either a straight or cross LAN cable can be used when the unit is directly connected with the PC, but when the unit is connected with the PC via a hub, be sure to use a straight cable.

• Check the LAN conditions, using Test mode of this unit:

① Start the unit in Test mode.
② Open "DEVICE" in “MODE 12: DEVICE TEST.”
③ The IP Address and Subnet Mask are indicated.
④ Check if the LAN is properly connected.

When the LAN is properly connected:
IP Address: xxx . xxx . xxx . xxx
Subnet Mask: yyy . yyy . yyy . yyy
The above x’s and y’s mean any numeric digits 0–9.
Four blocks of numerical string delimited by dots

When the LAN is not properly connected:
IP Address: EE . EE . EE . EE
Subnet Mask: EE . EE . EE . EE
All four blocks are filled with “EE.”

6. SERVICE MODE
6.1 TEST MODE

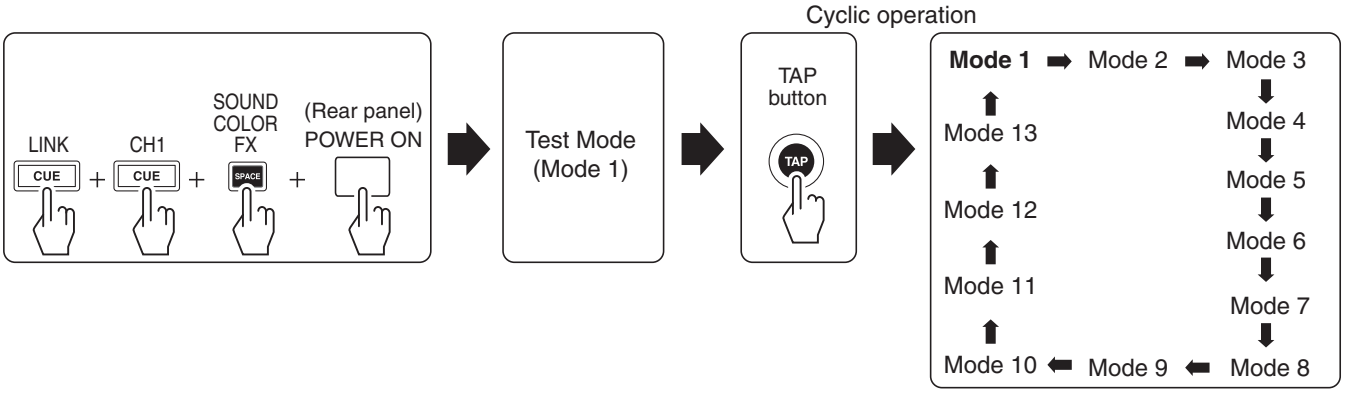
1. Description of Test Modes

The Following test modes are provided for this unit:

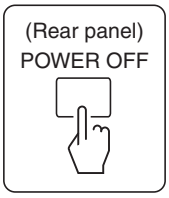
① Mode 1 : Software version confirmation mode. "Version"
② Mode 2 : Crossfader calibration mode. "CFDR SET"
③ Mode 3 : All LEDs Unlit mode. "ALL CLEAR"
④ Mode 4 : All LEDs Lit mode. "ALL SET"
⑤ Mode 5 : Keys operating test mode. "KEY TEST"
⑥ Mode 6 : Selector SWs operating test mode. "SW TEST"
⑦ Mode 7 : Rotary VRs value confimation mode. "VOL TEST"
⑧ Mode 8 : Faders value confimation mode. "FDR TEST"
⑨ Mode 9 : Level indicator LEDs check mode. "LED TEST"
⑩ Mode 10 : X-Pad value confimation mode. "X-PAD TEST"
⑪ Mode 11 : Rotary VRs' A/D-Value Change Confirmation mode. "VOL AD"
⑫ Mode 12 : Faders' A/D Amplitude Value Confirmation mode. "FDR AD"
⑬ Mode 13 : Device confirmation mode. "DEVICE"

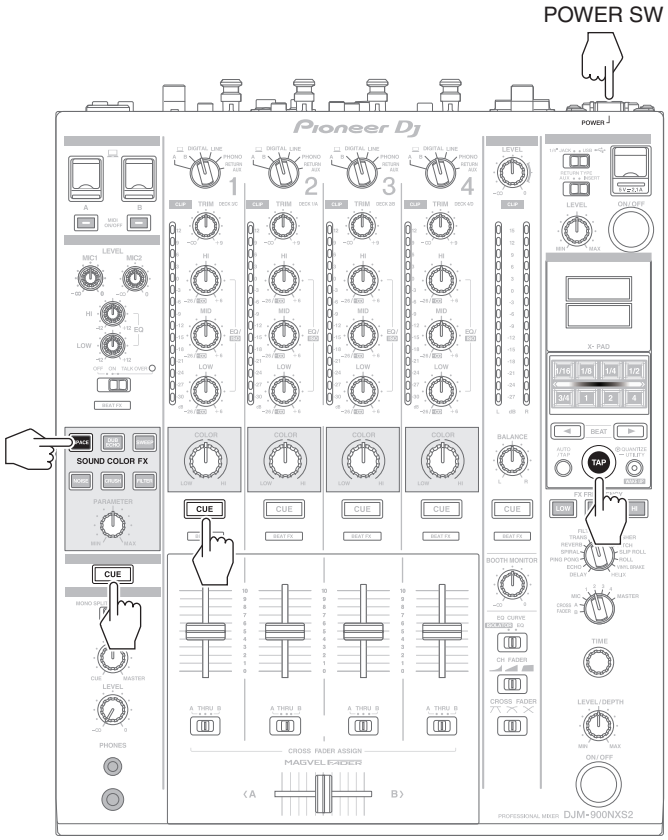
2. Test Mode

Test Mode : ON

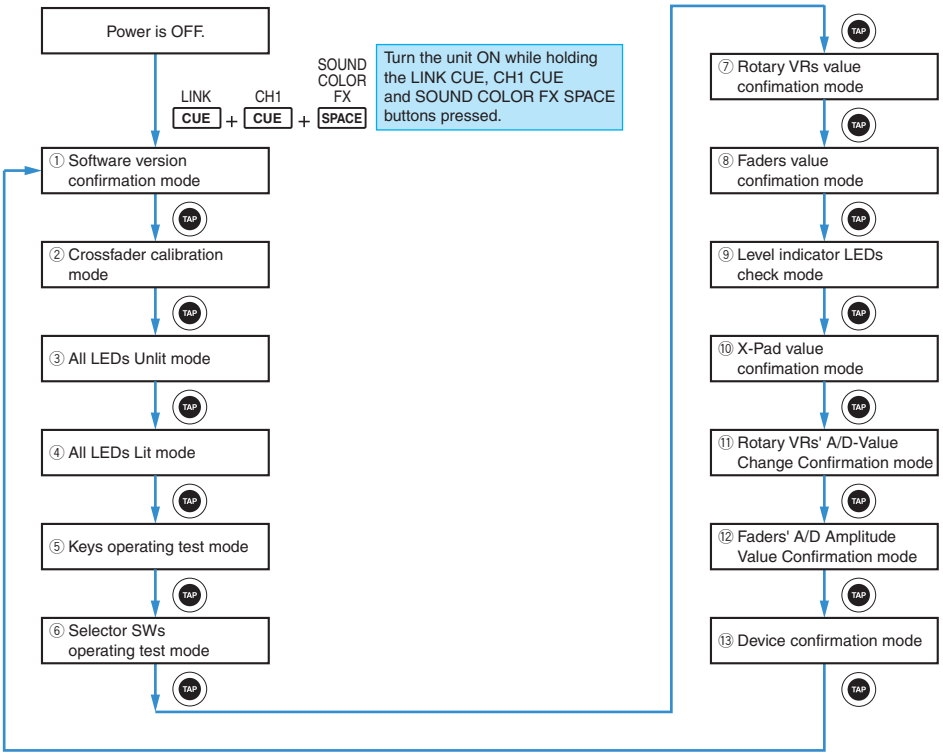


Test Mode : CANCEL





3. Mode transition flowchart


Power is OFF.
LINK
CUE
+
CH1
CUE
+
SOUND COLOR FX
SPACE
Turn the unit ON while holding the LINK CUE, CH1 CUE and SOUND COLOR FX SPACE buttons pressed.
① Software version confirmation mode
② Crossfader calibration mode
③ All LEDs Unlit mode
④ All LEDs Lit mode
⑤ Keys operating test mode
⑥ Selector SWs operating test mode
⑦ Rotary VRs value confirmation mode
⑧ Faders value confimation mode
⑨ Level indicator LEDs check mode
⑩ X-Pad value confimation mode
⑪ Rotary VRs' A/D-Value Change Confirmation mode
⑫ Faders' A/D Amplitude Value Confirmation mode
⑬ Device confirmation mode
TAP

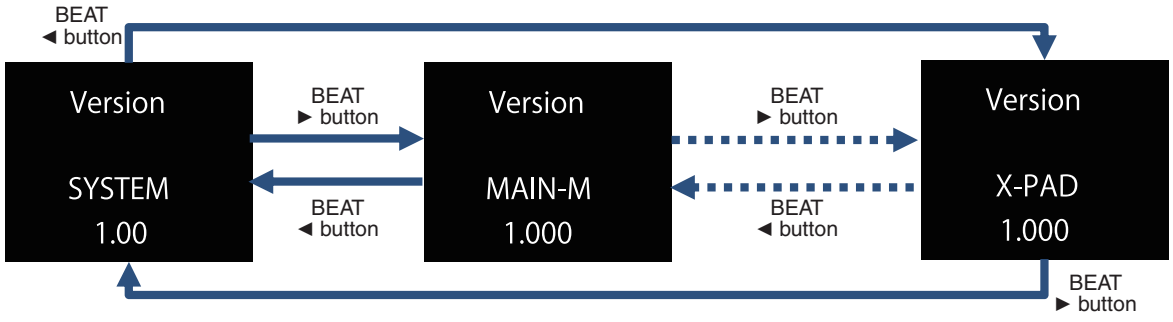
4. Test mode Contents

① Mode 1 : Software version confirmation mode. "Version"

- Mode for confirmation of the versions of the SYSTEM, MAIN-MAIN, MAIN-BOOT1, MAIN-BOOT2, MAIN-UPDATE, PANEL, PANEL-BOOT, DSP, SDSP, SH, SH-BOOT and X-PAD.
  When this mode is entered, “Version” is displayed at the top of the Main unit display and the TAP button lights.

- Mode 1 consists of 12 pages for indicating the versions of the SYSTEM, MAIN-MAIN, MAIN-BOOT1, MAIN-BOOT2, MAIN-UPDATE, PANEL, PANEL-BOOT, DSP, SDSP, SH, SH-BOOT and X-PAD.
  The pages can be changed by pressing the BEAT ◄, ► button.
  When Mode 1 is entered, the SYSTEM Version Display mode is automatically entered.

Software Name	Display indication	Software Name	Display indication
SYSTEM	SYSTEM	PANEL-BOOT	PANEL-B
MAIN-MAIN	MAIN-M	DSP	DSP
MAIN-BOOT1	MAIN-B1	SDSP	SRC-DSP
MAIN-BOOT2	MAIN-B2	SH	SH
MAIN-UPDATE	MAIN-UP	SH-BOOT	SH-B
PANEL	PANEL	X-PAD	X-PAD



② Mode 2 : Crossfader calibration mode "CFDR SET"

[Function outline]

Mode for obtaining then setting the minimum and maximum A/D values for the crossfader

[Mode name to be displayed]

CFDR SET

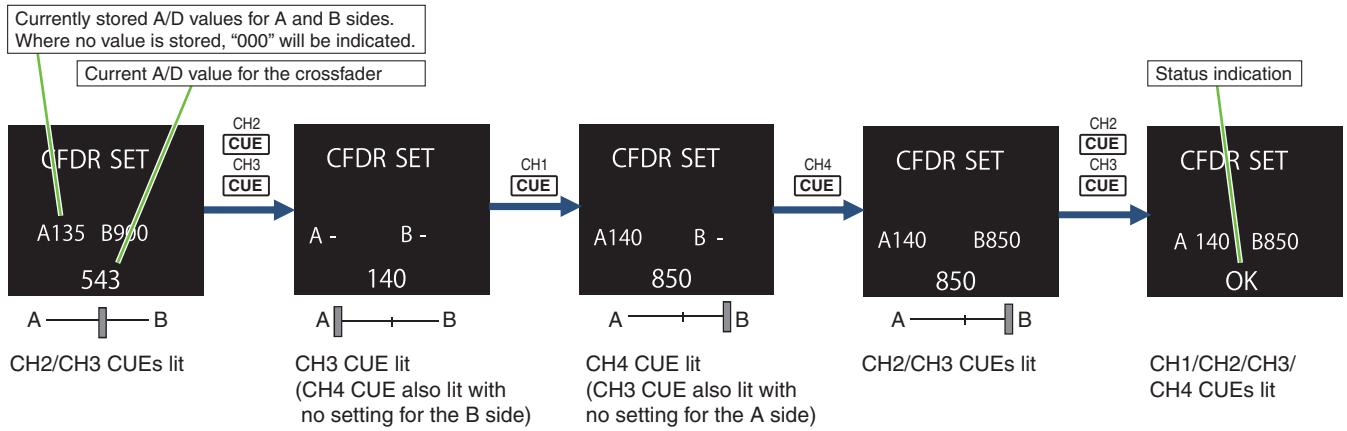
[Operating elements]

[TAP] : For changing modes
[CH1 CUE] [CH4 CUE] : For setting an A/D value
[CH2 CUE] [CH3 CUE] : For starting setting and storing a setting value

[How to operate]

(1) Starting setting
Press the CH2 CUE and CH3 CUE buttons simultaneously.
Setting of the minimum and maximum A/D values starts.
A bar is displayed at the A/D value indication positions for A and B.
(2) Setting on the A side
Slide the crossfader to its leftmost position then press the CH1 CUE button.
Upon determination, the determined A/D value will be displayed next to “A” in the 3rd row.
(3) Setting on the B side
Slide the crossfader to its rightmost position then press the CH4 CUE button.
Upon determination, the determined A/D value will be displayed next to “B” in the 3rd row.
(4) Storing a setting value
Press the CH2 CUE and CH3 CUE buttons simultaneously.
Confirm that storage succeeded with the status code to be displayed on the Main unit display.

[Display change]



Note: If an error was generated, the CH2 and CH3 CUE buttons are lit, indicating that the unit is waiting for setting restart.

[Status display]

Description of the status codes to be displayed on the Main unit display

OK	Storage completed
NG	Parameter error
ERR	Storage failed.
E10	A/D-value acquisition error on the A side
E20	A/D-value acquisition error on the B side

[Special instructions]

- If the minimum and maximum A/D values of the crossfader are not set, the CH1 CUE, CH2 CUE, CH3 CUE, and CH4 CUE buttons flash when the unit is started in Normal mode.
- If the amplitude value becomes larger during acquisition of an A/D value because of noise or erroneous operation, that session is deemed to be a failure. An acquisition process is reattempted up to 3 times. If an A/D value cannot be obtained after the 3rd retry, an acquisition error results.
- Any A/D values set in this mode will take effect immediately after they are stored.
- Even if an error is generated, setting can be restarted without a mode change.

③ Mode 3 : All LEDs Unlit mode "ALL CLEAR"

- Mode for extinguishing all the LEDs and display.
  Only after this mode is entered, “ALL CLEAR” is displayed for 1 second at the top of the Main unit display.

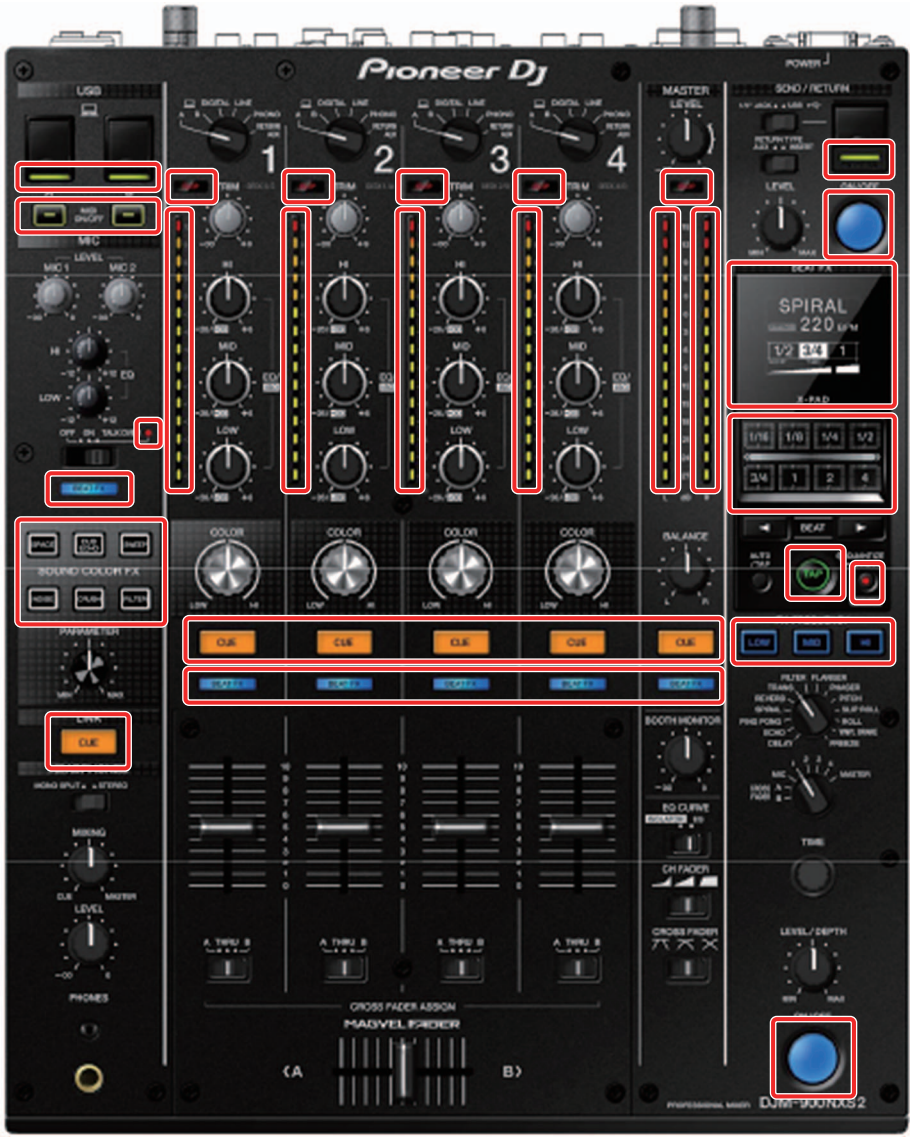
④ Mode 4 : All LEDs Lit mode "ALL SET"

- Mode for lighting all the LEDs and FL display.
  Only after this mode is entered, “ALL SET” is displayed for 1 second at the top of the Main unit display.

[Special instructions]

- The luminance level of the OLEDs must be maximum.

: LEDs lit during All LEDs Lit mode



⑤ Mode 5 : Keys operating test mode "KEY TEST"

- Mode for indicating a pressed key with lighting of an LED and indication on the Main unit display.
  When this mode is entered, “KEY TEST” is displayed at the top of the Main unit display and the TAP button lights.
- The name of a pressed key is indicated on the Main unit display.

Operating button	Lighting LED	Display indication
MIDI ON/OFF button (left)	MIDI ON/OFF button LED (left)	MIDI ON1
MIDI ON/OFF button (right)	MIDI ON/OFF button LED (right)	MIDI ON2
SOUND COLOR FX button (SPACE)	SOUND COLOR FX button LED (SPACE)	CFX1
SOUND COLOR FX button (DUB ECHO)	SOUND COLOR FX button LED (DUB ECHO)	CFX2
SOUND COLOR FX button (SWEEP)	SOUND COLOR FX button LED (SWEEP)	CFX3
SOUND COLOR FX button (NOISE)	SOUND COLOR FX button LED (NOISE)	CFX4
SOUND COLOR FX button (CRUSH)	SOUND COLOR FX button LED (CRUDH)	CFX5
SOUND COLOR FX button (FILTER)	SOUND COLOR FX button LED (FILTER)	CFX6
CH1 CUE button	CH1 CUE button LED	CUE1
CH2 CUE button	CH2 CUE button LED	CUE2
CH3 CUE button	CH3 CUE button LED	CUE3
CH4 CUE button	CH4 CUE button LED	CUE4
LINK CUE button	LINK CUE button LED	CUE LINK
MASTER CUE button	MASTER CUE button LED	CUE MST
SEND/RETURN ON/OFF button	SEND/RETURN ON/OFF button LED	S/R ON
BEAT ◄ (DOWN) button	Non	BEAT ◄
BEAT ► (UP) button	Non	BEAT ►
AUTO/TAP button	Non	AUTO
QUANTIZE (UTILITY, WAKE UP) button	QUANTIZE (UTILITY, WAKE UP) button LED	GRID
FX FREQUENCY button (LOW)	FX FREQUENCY button (LOW) LED	FREQ L
FX FREQUENCY button (MID)	FX FREQUENCY button (MID) LED	FREQ M
FX FREQUENCY button (HI)	FX FREQUENCY button (HI) LED	FREQ H
Beat effect ON/OFF button	Beat effect ON/OFF button LED	EFX ON

⑥ Mode 6 : Selector SWs operating test mode "SW TEST"

- When this mode is entered, “SW TEST” is displayed at the top of the Main unit display and the TAP button lights.

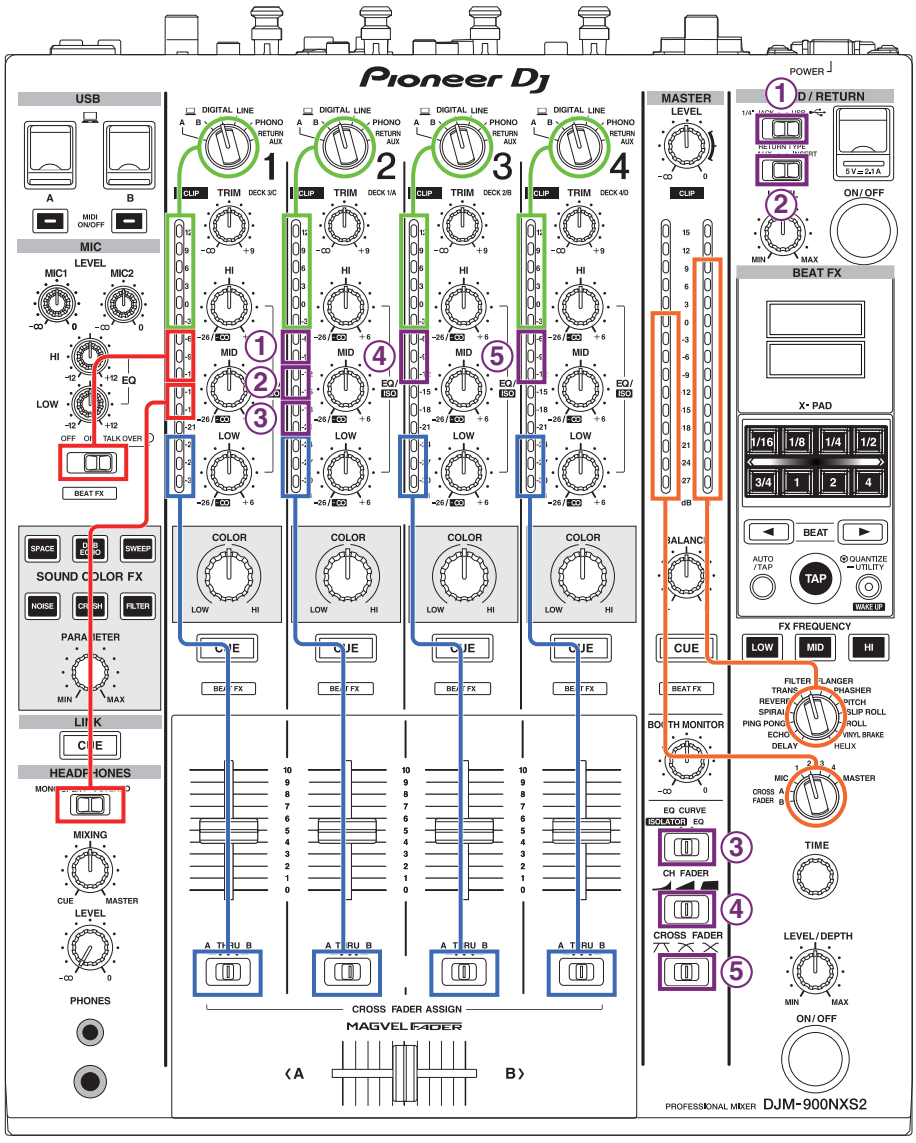
Operating switch		Lighting LED	
Input selector switch CH1	: USB A	Channel Level Indicator CH1	12 dB
	: USB B		9 dB
	: DIGITAL		6 dB
	: LINE		3 dB
	: PHONO		0 dB
	: RETURN		-3 dB
Input selector switch CH2	: USB A	Channel Level Indicator CH2	12 dB
	: USB B		9 dB
	: DIGITAL		6 dB
	: LINE		3 dB
	: PHONO		0 dB
	: RETURN		-3 dB
Input selector switch CH3	: USB A	Channel Level Indicator CH3	12 dB
	: USB B		9 dB
	: DIGITAL		6 dB
	: LINE		3 dB
	: PHONO		0 dB
	: RETURN		-3 dB

Operating switch		Lighting LED	
Input selector switch CH4	: USB A	Channel Level Indicator CH4	12 dB
	: USB B		9 dB
	: DIGITAL		6 dB
	: LINE		3 dB
	: PHONO		0 dB
	: RETURN		-3 dB
CROSS FADER ASSIGN selector switch CH1	: A	Channel Level Indicator CH1	-30 dB
	: THRU		-27 dB
	: B		-24 dB
CROSS FADER ASSIGN selector switch CH2	: A	Channel Level Indicator CH2	-30 dB
	: THRU		-27 dB
	: B		-24 dB
CROSS FADER ASSIGN selector switch CH3	: A	Channel Level Indicator CH3	-30 dB
	: THRU		-27 dB
	: B		-24 dB
CROSS FADER ASSIGN selector switch CH4	: A	Channel Level Indicator CH4	-30 dB
	: THRU		-27 dB
	: B		-24 dB
OFF, ON, TALK OVER selector switch	: OFF	Channel Level Indicator CH1	-6 dB
	: ON		-9 dB
	: TALK OVER		-12 dB
MONO SPLIT, STEREO selector switch	: MONO SPLIT	Channel Level Indicator CH1	-15 dB
	: STEREO		-18 dB
SEND/RETURN (1/4" JACK, USB) selector switch	: 1/4" JACK	Channel Level Indicator CH2	-6 dB
	: USB		-9 dB
RETURN TYPE (AUX, INSERT) selector switch	: AUX	Channel Level Indicator CH2	-12 dB
	: INSERT		-15 dB
EQ CURVE (ISOLATOR, EQ) selector switch	: ISOLATOR	Channel Level Indicator CH2	-18 dB
	: EQ		-21 dB
CH FADER (, ,) selector switch	:	Channel Level Indicator CH3	-6 dB
	:		-9 dB
	:		-12 dB
CROSS FADER (, ,) selector switch	:	Channel Level Indicator CH4	-6 dB
	:		-9 dB
	:		-12 dB
Effect channel selector switch	: CROSS FADER B	Master Level Indicator L ch	-6 dB
	: CROSS FADER A		-9 dB
	: MIC		-12 dB
	: 1		-15 dB
	: 2		-18 dB
	: 3		-21 dB
	: 4		-24 dB
	: MASTER		-27 dB
Beat effect selector switch	: DELAY	Master Level Indicator R ch	9 dB
	: ECHO		6 dB
	: PING PONG		3 dB
	: SPIRAL		0 dB
	: REVERB		-3 dB
	: TRANS		-6 dB
	: FILTER		-9 dB
	: FLANGER		-12 dB
	: PHASER		-15 dB
	: PITCH		-18 dB
	: SLIP ROLL		-21 dB
	: ROLL		-24 dB
	: VINYL BRAKE		-27 dB
	: HELIX		CLIP

This mode is also used to check operation of the TIME control.
The value displayed on the FL display increases/decreases as you turn the TIME control:

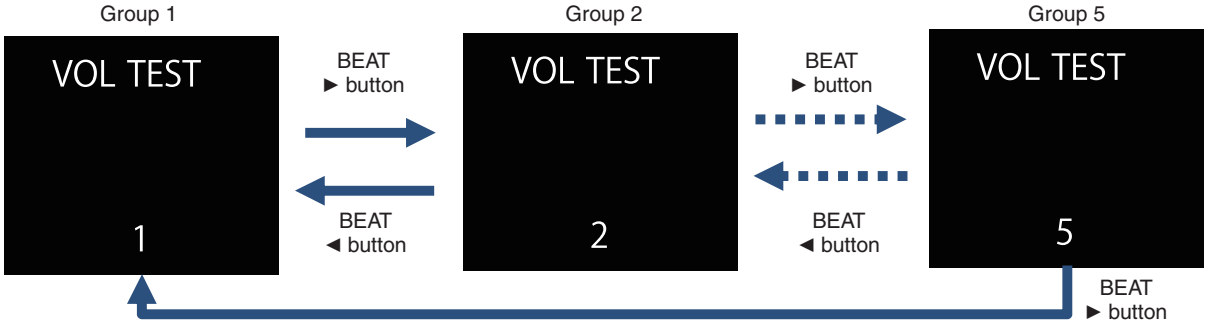
Operation range
Initial value: 0
Maximum value: 100
Minimum value: -100

Correspondence diagram



⑦ Mode 7 : Rotary VRs value confimation mode "VOL TEST"

- Mode for confirmation of the AD conversion value for each rotary VR on the operation panel with lighting of a channel level indicator LED or the Main unit display.
  When this mode is entered, “VOL TEST” is displayed on the Main unit display and the TAP button lights.
- To indicate the AD conversion values for several rotary VRs with a single level indicator, the rotary VRs are divided into 5 groups.
  The group pages can be changed by pressing the BEAT ◄, ► button.



[Use of this mode during repair]

- For failure judgment of the rotary VRs
- For operation check of a rotary VR after replacement

• Group 1

VR to be tested	Lit LED	Lighting range
CH1 TRIM control	CH1 Channel Level Indicator LED	"-∞": Lights off "+9": Full Illuminate
CH2 TRIM control	CH2 Channel Level Indicator LED	"-∞": Lights off "+9": Full Illuminate
CH3 TRIM control	CH3 Channel Level Indicator LED	"-∞": Lights off "+9": Full Illuminate
CH4 TRIM control	CH4 Channel Level Indicator LED	"-∞": Lights off "+9": Full Illuminate
EQ HI control	Master Level Indicator L LED	"-12": Lights off "+12": Full Illuminate
EQ LOW control	Master Level Indicator R LED	"-12": Lights off "+12": Full Illuminate

• Group 2

VR to be tested	Lit LED	Lighting range
CH1 EQ/ISO HI control	CH1 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH2 EQ/ISO HI control	CH2 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH3 EQ/ISO HI control	CH3 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH4 EQ/ISO HI control	CH4 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
MIXING control	Master Level Indicator L LED	"CUE": Lights off "MASTER": Full Illuminate
LEVEL control	Master Level Indicator R LED	"-∞": Lights off "0": Full Illuminate

• Group 3

VR to be tested	Lit LED	Lighting range
CH1 EQ/ISO MID control	CH1 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH2 EQ/ISO MID control	CH2 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH3 EQ/ISO MID control	CH3 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH4 EQ/ISO MID control	CH4 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
MASTER LEVEL control	Master Level Indicator L LED	"-∞": Lights off "0": Full Illuminate
BALANCE control	Master Level Indicator R LED	"L": Lights off "R": Full Illuminate

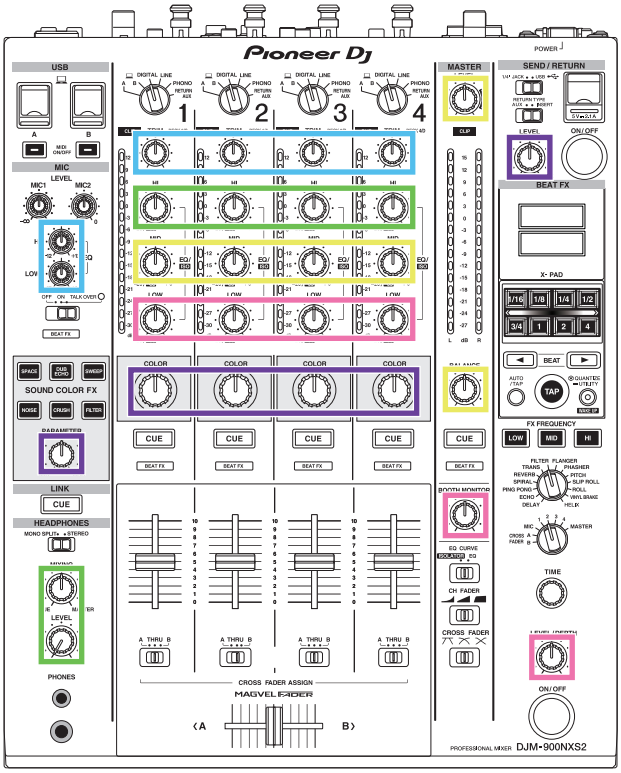
• Group 4

VR to be tested	Lit LED	Lighting range
CH1 EQ/ISO LOW control	CH1 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH2 EQ/ISO LOW control	CH2 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH3 EQ/ISO LOW control	CH3 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
CH4 EQ/ISO LOW control	CH4 Channel Level Indicator LED	"-∞/-26": Lights off "+6": Full Illuminate
BOOTH MONITOR control	Master Levele Indicator L LED	"-∞": Lights off "0": Full Illuminate
LEVEL/DEPTH control	Master Levele Indicator R LED	"MIN": Lights off "MAX": Full Illuminate

• Group 5

VR to be tested	Lit LED	Lighting range
CH1 COLOR control	CH1 Channel Level Indicator LED	"LOW": Lights off "HI": Full Illuminate
CH2 COLOR control	CH2 Channel Level Indicator LED	"LOW": Lights off "HI": Full Illuminate
CH3 COLOR control	CH3 Channel Level Indicator LED	"LOW": Lights off "HI": Full Illuminate
CH4 COLOR control	CH4 Channel Level Indicator LED	"LOW": Lights off "HI": Full Illuminate
SEND/RETURN LEVEL control	Master Levele Indicator L LED	"MIN": Lights off "MAX": Full Illuminate
PARAMETER control	Master Levele Indicator R LED	"MIN": Lights off "MAX": Full Illuminate

Correspondence diagram



⑧ Mode 8 : Faders value confimation mode "FDR TEST"

• Mode for confirmation of the values of CH1–4 Channel Fader and Crossfader with the Level indicator LEDs. When this mode is entered, “FDR TEST” is displayed on the Main unit display and the TAP button lights.

[Use of this mode during repair]

• For failure judgment of the faders
• For operation check of a fader after replacement

Fader to be tested	Lit LED	Lighting range
CH1 Channel Fader	CH1 Channel Level Indicator LED	"0": Lights off "10": Full Illuminate
CH2 Channel Fader	CH2 Channel Level Indicator LED	"0": Lights off "10": Full Illuminate
CH3 Channel Fader	CH3 Channel Level Indicator LED	"0": Lights off "10": Full Illuminate
CH4 Channel Fader	CH4 Channel Level Indicator LED	"0": Lights off "10": Full Illuminate
Crossfader	Master Level Indicator L LED	"A": Lights off "B": Full Illuminate

[Special instructions]

For the crossfader, the LEDs light with reference to the minimum and maximum A/D values that have been stored in Crossfader calibration mode. "CFDR SET".
If the A/D values are not stored, the immediate A/D values will be used.

⑨ Mode 9 : Level indicator LEDs check mode "LED TEST"

- Mode for confirming lighting of the Level Indicator LEDs
  When this mode is entered, “LED TEST” is displayed on the Main unit display and the TAP button lights.
  The LEDs for CH1 CUE button, CH2 CUE button, CH3 CUE button, CH4 CUE button, MASTER CUE button, and FX FREQUENCY LOW button light.
- Each time the CUE button is pressed, the channel level indicator LEDs for each channel light one by one from the bottom (included CLIP). At first, all the LEDs are unlit.
  If the CUE button is pressed after it was pressed 16 times (when the top LED is lit), all the LEDs become unlit again.

Button to be tested	Lit LED
CH1 CUE button	CH1 Channel Level Indicator / CLIP LED
CH2 CUE button	CH2 Channel Level Indicator / CLIP LED
CH3 CUE button	CH3 Channel Level Indicator / CLIP LED
CH4 CUE button	CH4 Channel Level Indicator / CLIP LED
MASTER CUE button	Master Level Indicator L / CLIP LED
FX FREQUENCY LOW button	Master Level Indicator R / CLIP LED

⑩ Mode 10 : X-Pad value confimation mode "X-PAD TEST"

[Function outline]

Mode for confirmation of the X-PAD value with a Level indicator LED and the Main unit display

[Mode name to be displayed]

X-PAD TEST

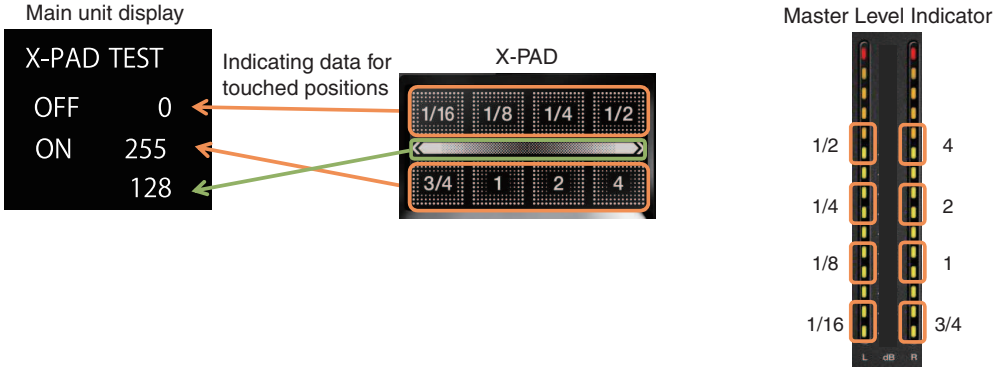
[Operating elements]

[X-PAD]
[TAP] (light) : Mode change (to next mode)

[Operation details]

- The data item for a touched position on the upper or lower X-PAD is expressed as a figure in the range of 0 to 255 and displayed in the 2nd row (for the upper X-PAD) or the 3rd row (for the lower X-PAD).
- The indication “ON” or “OFF” is displayed at left of the touched position data to indicate whether the X-PAD is touched (ON) or not (OFF).
- The data of a touched position on the X-PAD are indicated by lighting of the LEDs of the Master Level Indicator.
- The data item for a touched position on the slicer in between the upper and lower X-PADs is expressed as a figure in the range of 0 to 255 and displayed in the 4th row.

[Indications]



[Table of corresponding LEDs and indications]

Operating Section	Lit LED or display	Display indication
X-PAD upper	Main unit display	2nd row: ON/OFF, 0–255
X-PAD lower	Main unit display	3rd row: ON/OFF, 0–255
X-PAD 1/16	Master Level Indicator L LED	-27/-24
X-PAD 1/8	Master Level Indicator L LED	-18/-15
X-PAD 1/4	Master Level Indicator L LED	-9/-6
X-PAD 1/2	Master Level Indicator L LED	0/3
X-PAD 3/4	Master Level Indicator R LED	-27/-24
X-PAD 1	Master Level Indicator R LED	-18/-15
X-PAD 2	Master Level Indicator R LED	-9/-6
X-PAD 4	Master Level Indicator R LED	0/3
X-PAD middle	Main unit display	4th row: 0–255

[Special instructions]

- Even while the upper or lower X-PAD is touched, the previous position data for the slicer remain displayed in the 4th row of the main unit display.
- Even while the slicer is touched, the previous position data for the upper and/or lower X-PADs remain displayed on the main unit display.

⑪ Mode 11 : Rotary VRs' A/D-Value Change Confirmation mode "VOL AD"

[Function outline]

Mode for displaying the AD values of rotary VRs on the Main unit display for confirmation

[Mode name to be displayed]

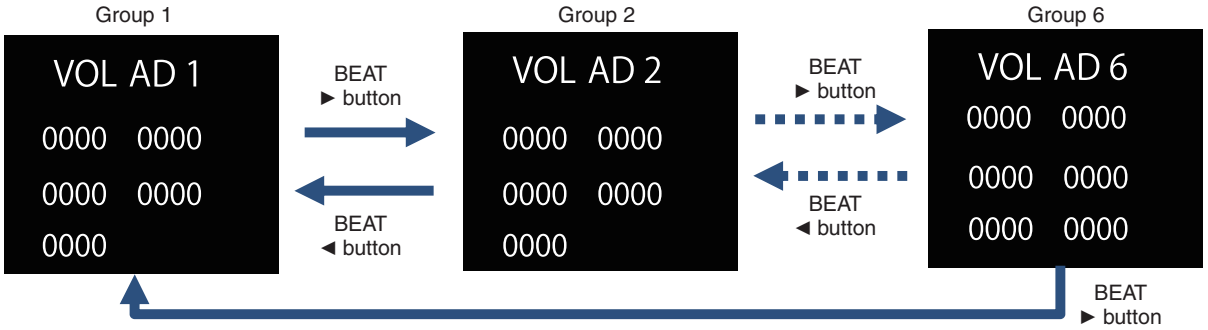
VOL AD

[Operating elements]

Rotary VRs to be tested
BEAT ►, BEAT ◄ buttons: For switching groups
FX FREQUENCY LOW button: For measuring A/D values
TAP button (light) : For changing modes (to next mode)

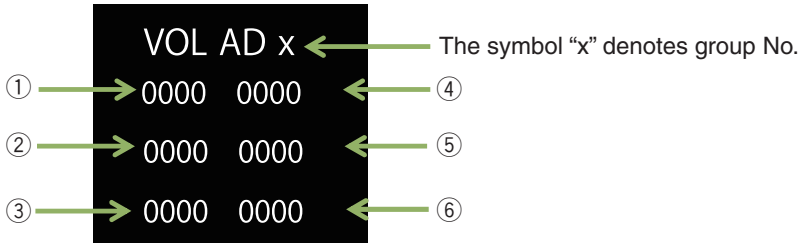
[Operation details]

The maximum amplitude value among A/D conversion values for a rotary VR being tested can be confirmed.
Turn a rotary VR to be tested to a desired position then press the FX FREQUENCY LOW button to start measuring.
The amplitude value will be indicated by the corresponding level indicator.
To reset the value, press the FX FREQUENCY LOW button again. During measurement, the maximum amplitude value will be continuously displayed.
The FX FREQUENCY LOW button is lit during measurement and goes dark when reset.



A/D-value indications

The A/D value for each rotary VR is indicated, as shown below.



[Use of this mode during repair]

- For failure judgment of the rotary VRs
  As a guide, amplitude values higher than +4 or lower than -4 may be judged as failure.
  The VRs can be set to any position during measurement. Possible symptoms are shown below.
  - The volume changes arbitrarily.
  - Interrupted sound leakage occurs even if the volume is decreased to the minimum at the Master or ZONE.
  - The MIDI signal is output even if the corresponding VR is not operated.
- For operation check of a rotary VR after replacement

• Group 1

VR to be tested	Lit LED or Display	Indication content
EQ HI control	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
EQ LOW control	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
PARAMETER control	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
MIXING control	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
LEVEL control	Master Level Indicator L LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value (0000 to 1023) is displayed at ⑤.

• Group 2

VR to be tested	Lit LED or Display	Indication content
CH1 TRIM control	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
CH1 EQ/ISO HI controls	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
CH1 EQ/ISO MID controls	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
CH1 EQ/ISO LOW controls	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
CH1 COLOR control	Master Level Indicator L LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value (0000 to 1023) is displayed at ⑤.

• Group 3

VR to be tested	Lit LED or Display	Indication content
CH2 TRIM control	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
CH2 EQ/ISO HI controls	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
CH2 EQ/ISO MID controls	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
CH2 EQ/ISO LOW controls	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
CH2 COLOR control	Master Level Indicator L LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value (0000 to 1023) is displayed at ⑤.

• Group 4

VR to be tested	Lit LED or Display	Indication content
CH3 TRIM control	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
CH3 EQ/ISO HI controls	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
CH3 EQ/ISO MID controls	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
CH3 EQ/ISO LOW controls	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
CH3 COLOR control	Master Level Indicator L LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value (0000 to 1023) is displayed at ⑤.

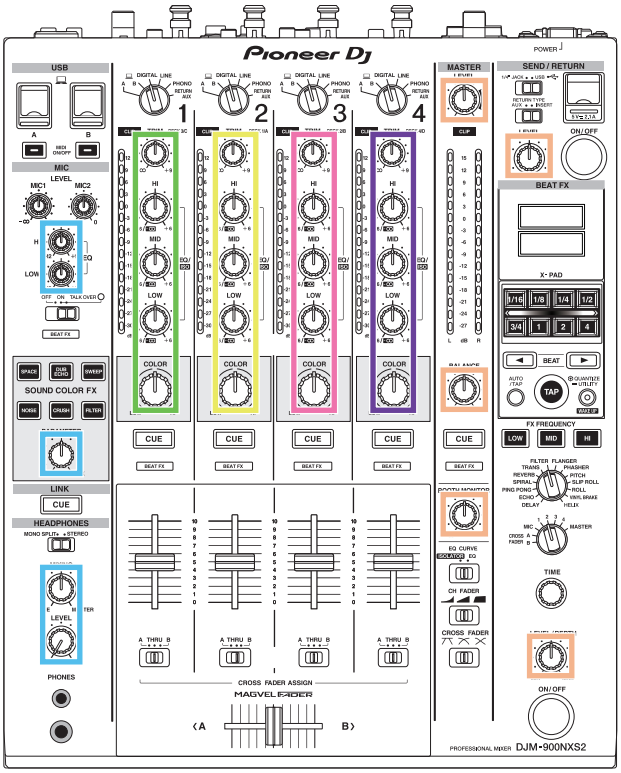
• Group 5

VR to be tested	Lit LED or Display	Indication content
CH4 TRIM control	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
CH4 EQ/ISO HI controls	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
CH4 EQ/ISO MID controls	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
CH4 EQ/ISO LOW controls	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
CH4 COLOR control	Master Level Indicator L LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value (0000 to 1023) is displayed at ⑤.

• Group 6

VR to be tested	Lit LED or Display	Indication content
MASTER LEVEL control	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
BALANCE control	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
BOOTH MONITOR control	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
SEND/RETURN LEVEL control	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
—	—	—
	Main unit display	⑤: Blank
LEVEL/DEPTH control	Master Level Indicator R LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value (0000 to 1023) is displayed at ⑥.

Correspondence diagram



[Special instructions]

- As an A/D value that is displayed on the main unit display is the one before a hysteresis-removal process, and as it has an amplitude, an error of about ±2 may be produced.

⑫ Mode 12 : Faders' A/D Amplitude Value Confirmation mode "FDR AD"

[Function outline]

Mode for displaying the AD values of the faders on the Main unit display for confirmation

[Mode name to be displayed]

FDR AD

[Operating elements]

Faders to be tested
FX FREQUENCY LOW button: For measuring amplitude values
TAP button (light) : For changing modes (to next mode)

[Operation details]

The maximum amplitude value among A/D conversion values for a fader being tested can be confirmed.
Set the fader to be tested to a desired position then press the FX FREQUENCY LOW button to start measuring. The amplitude value will be indicated with the corresponding level indicator.
To reset the value, press the FX FREQUENCY LOW button again. During measurement, the maximum amplitude value will be continuously displayed.
The FX FREQUENCY LOW button is lit during measurement and goes dark when reset.
The A/D value of each fader is displayed on the main unit display.

[Display]

An AD value of each fader is indicated.

Fader to be tested	Lit LED or display	Indication content
CH1 Channel Fader	CH1 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ①.
CH2 Channel Fader	CH2 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ②.
CH3 Channel Fader	CH3 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ③.
CH4 Channel Fader	CH4 Channel Level Indicator LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –30.
	Main unit display	An A/D value (0000 to 1023) is displayed at ④.
Crossfader	Master Level Indicator L LED	The amplitude value is indicated with increment in the number of the indicator LEDs, lit from the LED marked –27.
	Main unit display	An A/D value is displayed at ⑤. (*1)

*1: The value varies, depending on the unit.
The lower limit ranges approximately 100–200,
and the upper limit ranges approximately 800–900.

[Use of this mode during repair]

- For failure judgment of the faders
  As a guide, amplitude values higher than +4 or lower than -4 may be judged as failure.
  The VRs can be set to any position during measurement. Possible symptoms are shown below.
  - The volume changes arbitrarily.
  - Interrupted sound leakage occurs even if the volume is decreased to the minimum at the fader.
  - The MIDI signal is output even if the corresponding VR is not operated.
- For operation check of a fader after replacement

[Special instructions]

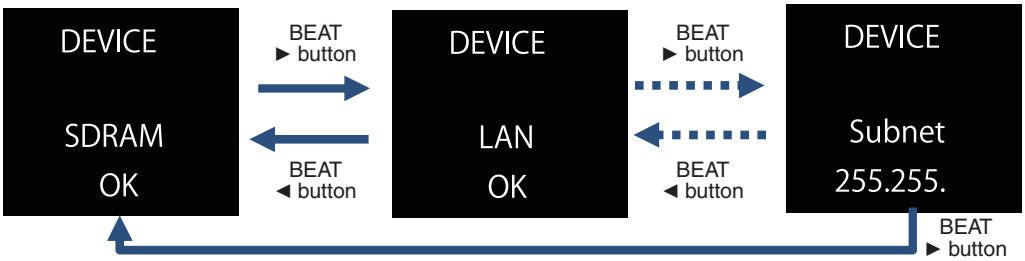
- As an A/D value that is displayed on the main unit display is the one before a hysteresis-removal process, and as it has an amplitude, an error of about ±2 may be produced.

⑬ Mode 13 : Device confirmation mode "DEVICE"

- Mode for displaying the device information for confirmation
  When this mode is entered, “DEVICE” is displayed at the top of the Main unit display and the TAP button lights.
- Mode 13 consists of 5 pages for indicating the statuses of DSP SDRAM, LAN, MAC address, IP address, and Subnet Mask.
  The pages can be changed by pressing the BEAT ◄, ► button.
- “OK” is displayed in the bottom of the Main unit display when the device is operating properly, and “NG” is displayed when it is not properly operating.

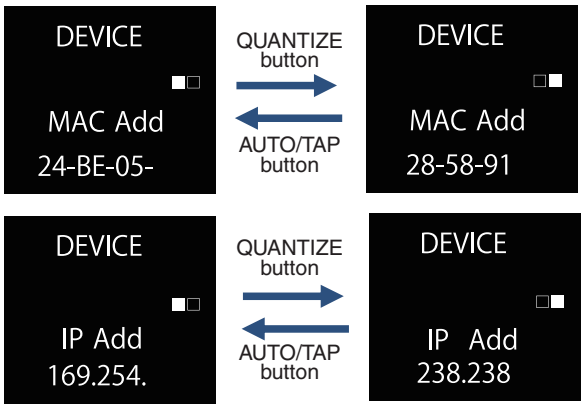
[Display]

Switching pages



Switching addresses

The MAC Address, IP Address, and Subnet Mask are displayed in the 4th row of the main unit display.
To switch pages for confirmation of addresses, use the AUTO/TAP or QUANTIZE (UTILITY, WAKE UP) button.
The total number of pages is expressed by the number of squares on the right side of the 2nd row. A square filled with white represents a currently displayed page.



[Table of devices/addresses and corresponding indications]

Device, Address	Main unit display indication			
	Title	Result		
DSP SDRAM	SDRAM	CHK	: During check	
		OK	: Properly operating	
		NG	: Not properly operating	
LAN	SDRAM	OK	: Properly operating	
		NG	: Not properly operating	
MAC Address	MAC Add	xx-xx-xx-	: Address value (1st page)	*1
		xx-xx-xx	: Address value (2nd page)	*1
		FF	: No setting	
IP Address	IP Add	xxx.xxx.	: Address value (1st page)	*1
		xx.xxx	: Address value (2nd page)	*1
		EE	: Error	*2
Subnet Mask	Subnet	xxx.xxx.	: Address value (1st page)	*1
		xx.xxx	: Address value (2nd page)	*1
		EE	: Error	*3

*1: The symbol x represents an alphanumeric for an address value.
*2: “EE” is also displayed while the IP address is being obtained. If “EE” is displayed for more than 30 seconds, something is wrong.
*3: “EE” is also displayed before the subnet mask data are obtained.

[Special instructions]

For acquisition of the IP Address and Subnet Mask, the unit must be connected with a PC via a LAN cable.

6.2 ABOUT THE DEVICE

Device Name	Function	Part No.	Ref. No.	Assy
MAIN UCOM	Main control	AM3352BZCZ100	IC1	MAIN Assy
DDR3 SDRAM	RAM for MAIN UCOM (WORK)	K4B1G1646G-BCK0	IC9	MAIN Assy
FLASH	ROM for MAIN UCOM (Firmware in MAC Address)	DYW****	IC8	MAIN Assy
DSP	Audio DSP	D810K013DZKB456	IC1001	MAIN Assy
DSP_SDRAM1	RAM for DSP	M12L2561616A-5TG2S-K	IC1003	MAIN Assy
DSP_SDRAM2	RAM for DSP	M12L2561616A-5TG2S-K	IC1004	MAIN Assy
SRC_DSP	Audio DSP	D810K013DZKB456	IC1501	MAIN Assy
USBC UCOM	USBC control	R5S72670P144FP	IC2004	MAIN Assy
FLASH	ROM for USBC UCOM	DYW****	IC2003	MAIN Assy
LAN PHY	PHY for Ether net LINK	LAN8720A-CP	IC16	MAIN Assy
PANEL UCOM	Main control. LED, OLED, KEY, VR control	DYW****	IC7001	PNLA Assy
X-PAD TOUCH CONTROLLER	Contact position detection of a X-PAD	ATSAMD20E15A-MU	IC4902	CDCB Assy

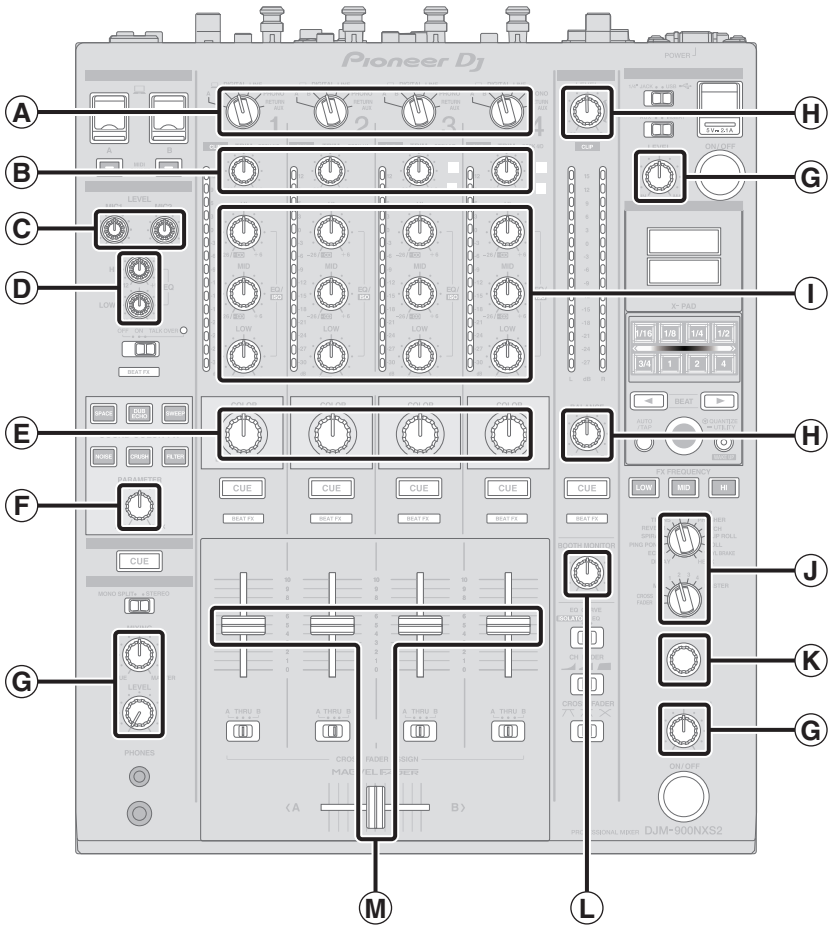
Note on DYW**
The "****" part of the part number changes each time the firmware is updated.

Two or more FLASH and SDRAM are mounted in this unit.
Please judge the device which you should diagnose in reference to this list.

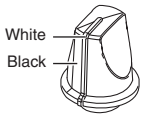
7. DISASSEMBLY

Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

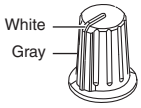
Knobs and Volumes Location



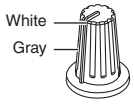
A DAA1345 ×4



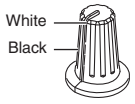
B DAA1321 ×4



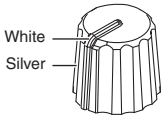
C DAA1354 ×2



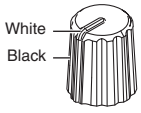
D DAA1307 ×2



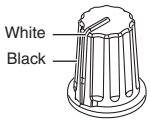
E DAA1309 ×4



F DAA1250 ×1

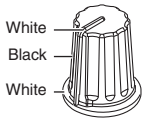


G DAA1220 ×4

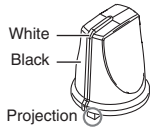


H DAA1265 ×2

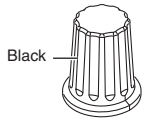
I DAA1305 ×12



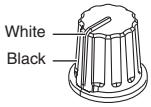
J DAA1205 ×2



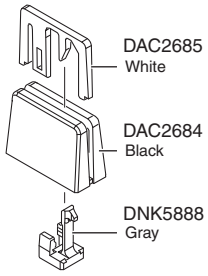
K DAA1180 ×1



L DAA1198 ×1



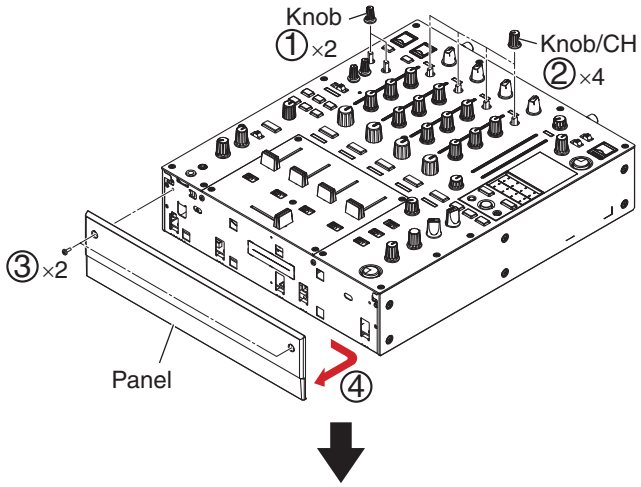
M DAC2684 ×5 + DAC2685 ×5 + DNK5888 ×5



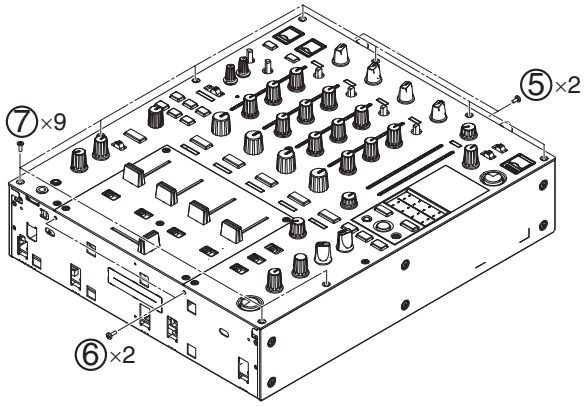
Disassembly

[1] Control panel Section

(1) Remove the 2 Knobs.
(2) Remove the 4 Knobs/CH.
(3) Remove the 2 screws.
(BBZ30P060FTB)
(4) Remove the Panel in a front direction after sliding it around 5-7 mm on the right direction.

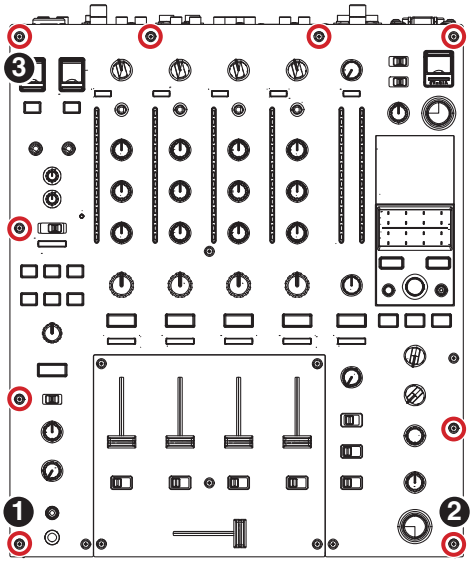


(5) Remove the 2 screws.
(BBZ30P060FTB)
(6) Remove the 2 screws.
(BBZ30P060FTC)
(7) Remove the 9 screws.
(DBA1446)

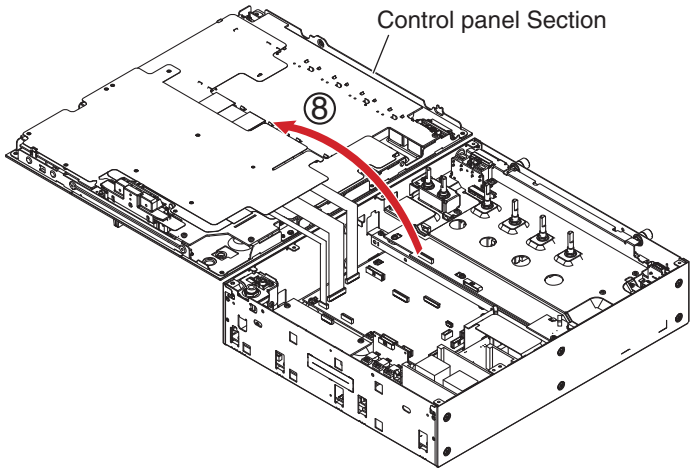


Screw tightening order

The other screws are random order.



(8) Open the Control panel Section in the direction of the arrow, and remove it.



Note:
During reassembly, after attaching the control panel section, open the USB cover then visually inspect to verify that the USB_A and USB_B connectors have been properly attached to each USB panel. (See the next page.)

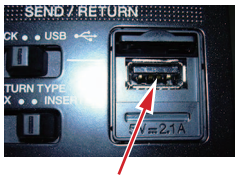
■ Note on reassembly of the control panel section

When attaching the control panel section, be sure to verify that the USB_A and USB_B connectors have been properly attached.

• If a USB connector is not attached at the proper position of the USB panel, the USB connector may not function properly or the cover of the USB panel may not open.

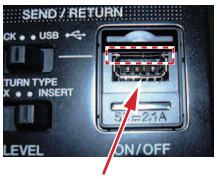
Open the cover of each USB panel then check the following:
(Example: In a case of USB_A)

OK



The USB connector must be placed properly in the opening of the USB panel.

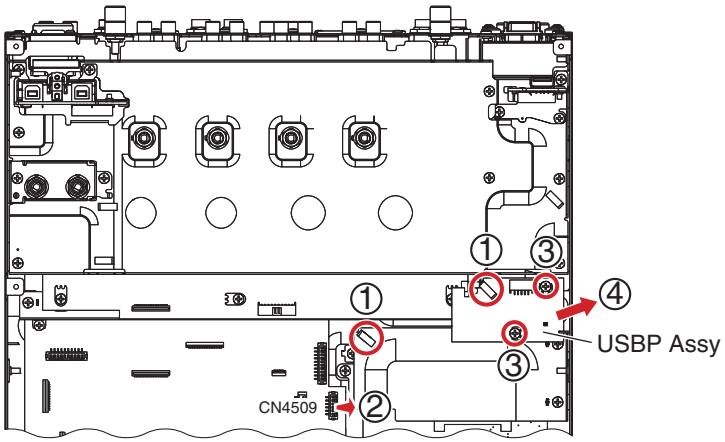
NG



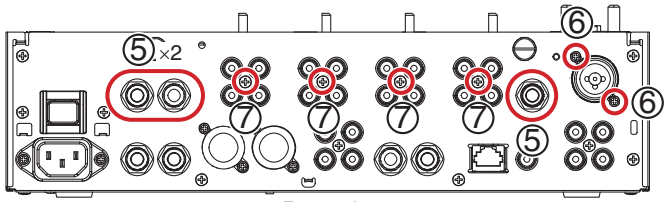
The USB connector is not placed properly in the opening of the USB panel.

[2] Input Section

(1) Release the jumper wires from the 2 Locking mini clamps.
(2) Disconnect the 1 connector. (CN4509)
(3) Remove the 2 screws. (BBZ30P060FTC)
(4) Remove the USBP Assy while sliding it in the direction of the arrow.

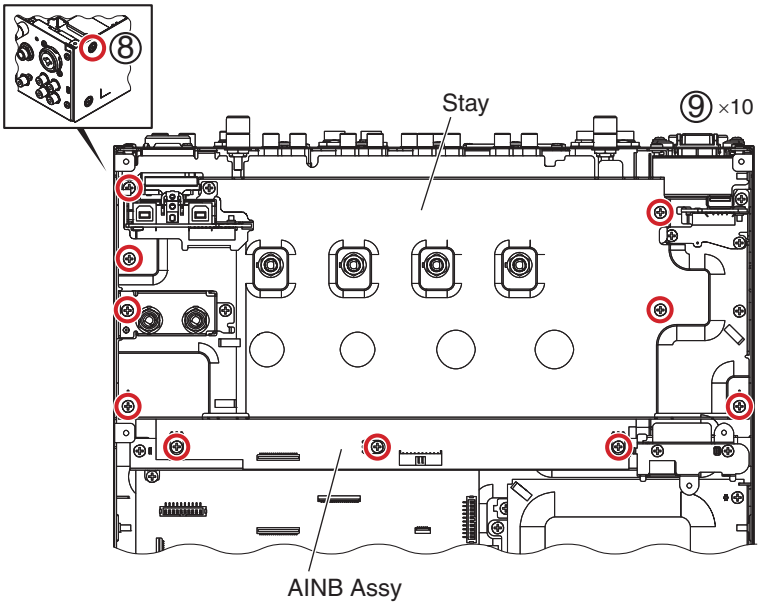


(5) Remove the 3 nuts and 3 washers. (NKX2FTC, DEC2920)
(6) Remove the 2 screws. (PPZ30P080FTB)
(7) Remove the 4 screws. (BPZ30P080FTB)

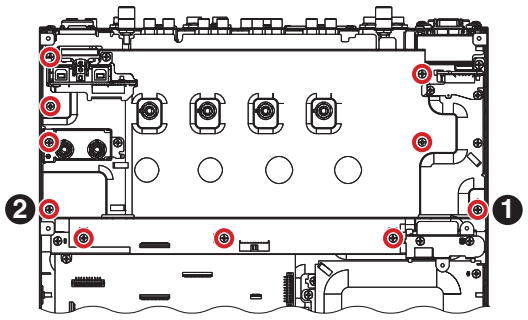


• Rear view

(8) Remove the 1 screw.
(DBA1290)
(9) Remove the 10 screws.
(BBZ30P060FTC)

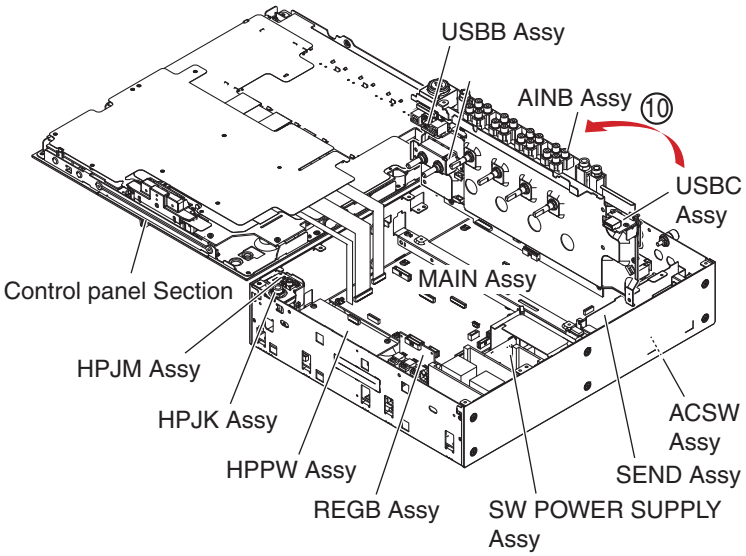


Screw tightening order
The other screws are random order.



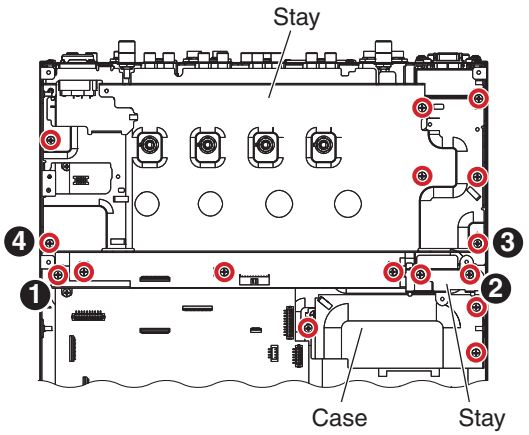
(10) Lift up the Input Section to a front direction.

Diagnosis

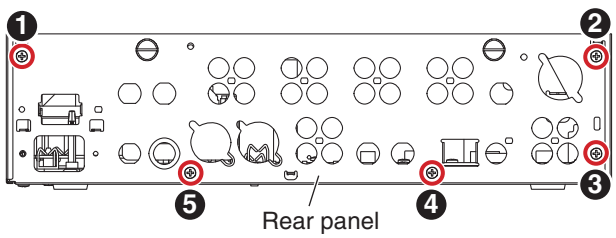


Reference information

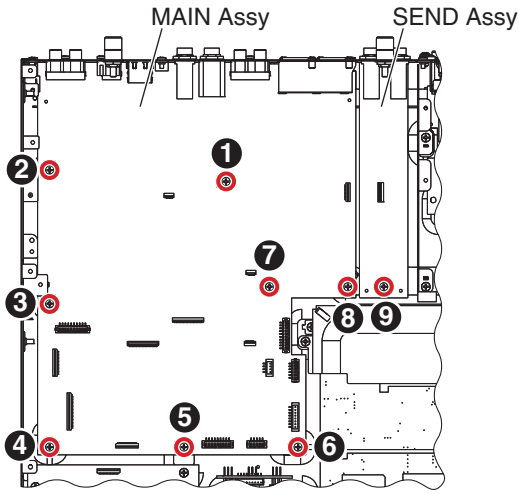
Screw tightening order (Stay, Case)
The other screws are random order.



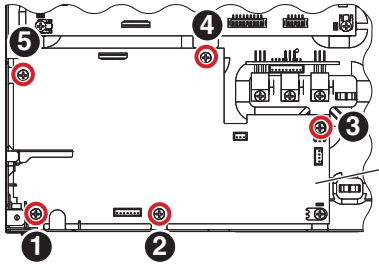
Screw tightening order (Rear panel)



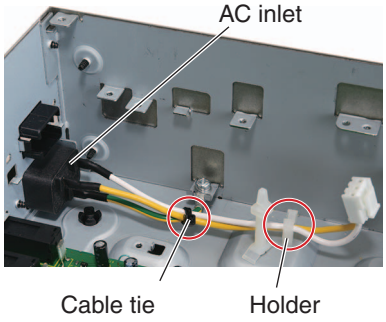
Screw tightening order (MAIN, SEND Assemblies)

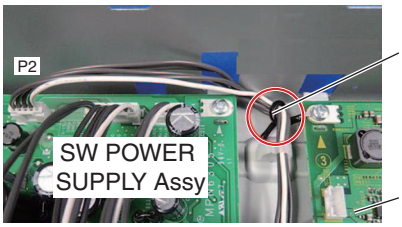


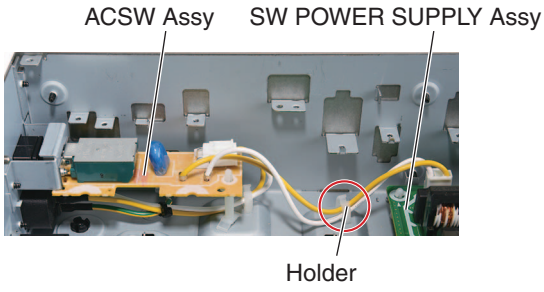
Screw tightening order (HPPW Assy)

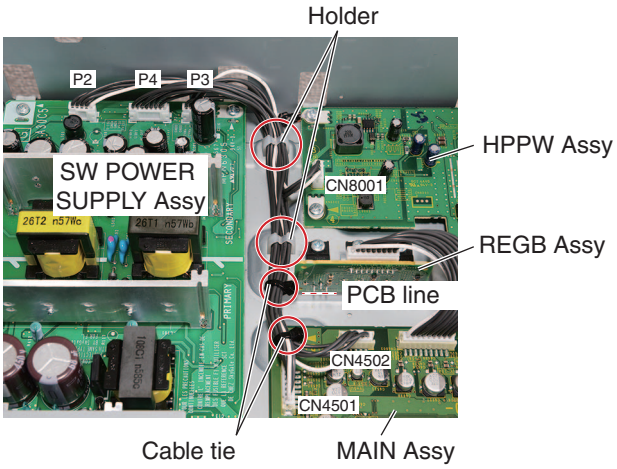


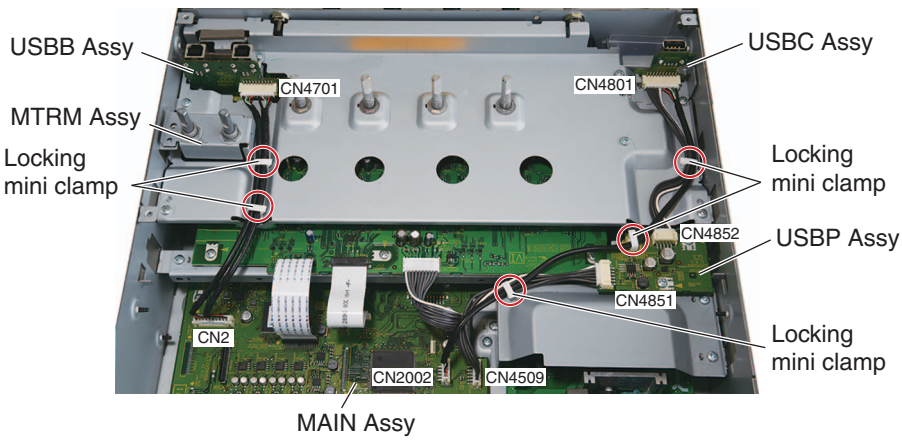
Jumper wire styling







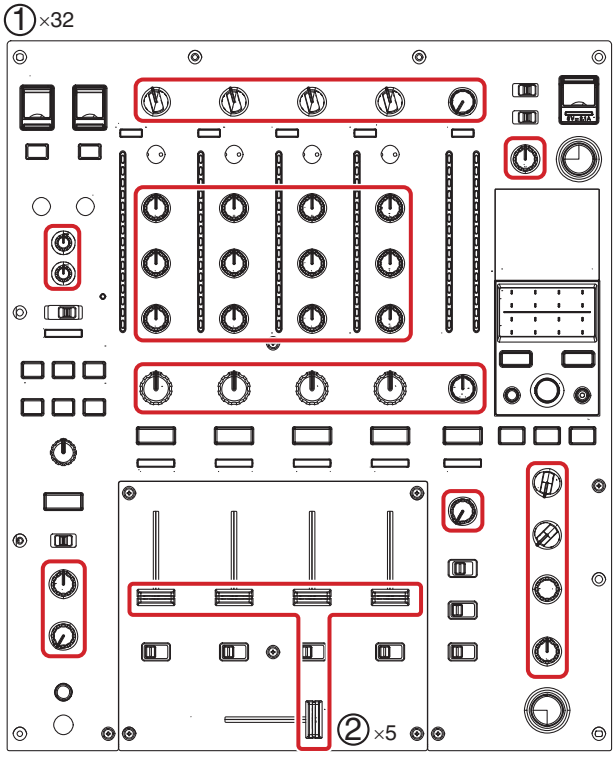




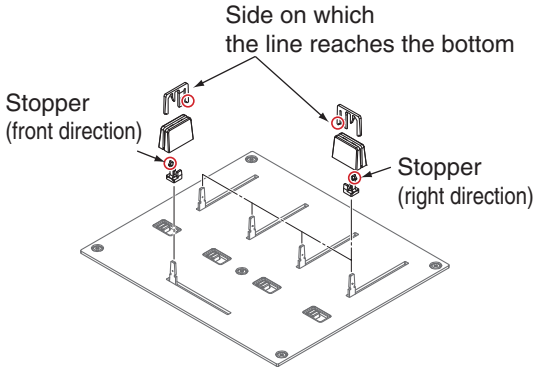
[3] Control panel Section

[3-1] Control panel and Panel

(1) Remove the all knobs.
(2) Remove the five silider knobs 2, five slider knobs 1, five slider knob stoppers. (See below.)



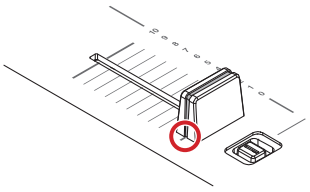
The reference of the direction



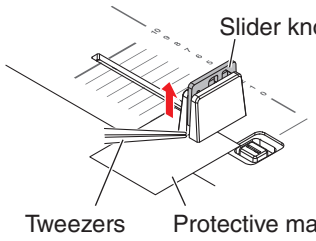
• Disassembly of the slider knob

The new slider knob adopted by this product is designed so that it is not pulled out easily.
Therefore, the method for removing the slider knob is different from the conventional method; it can only be pulled out after slider knob 2 is removed.

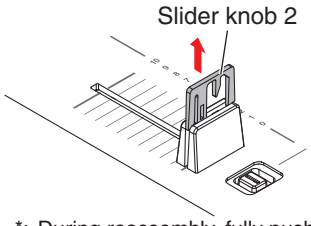
① Find the side on which the line reaches the bottom.



② Insert a pair of tweezers etc. beneath the line then push the slider knob 2 upward. To protect the panel from being scratched, use protective material.

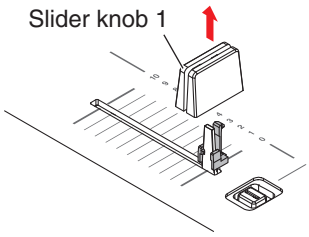


③ Remove the slider knob 2.

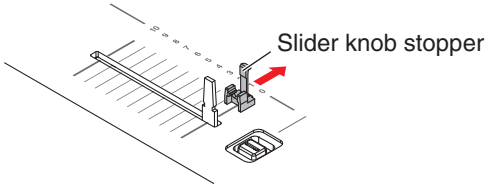


*: During reassembly, fully push down Slider knob 2 until it is dented into Slider knob 1.

④ Remove the slider knob 1.



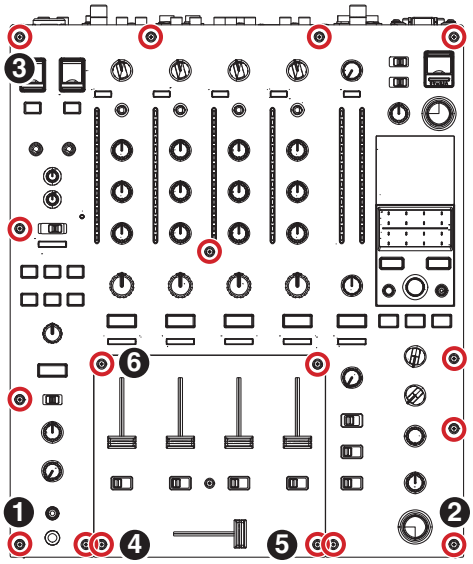
⑤ Remove the slider knob stopper.

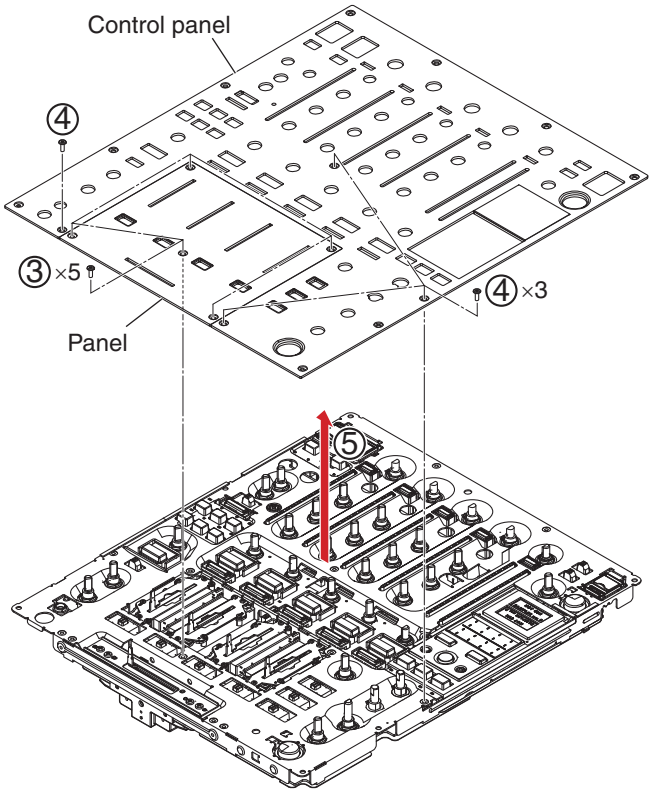


(3) Remove the 5 screws.
(DBA1446)
(4) Remove the 4 screws.
(DBA1446)
(5) Remove the Control panel and Panels.

Note:
When you remove only Fader panel, it is a process of step (2), (3).

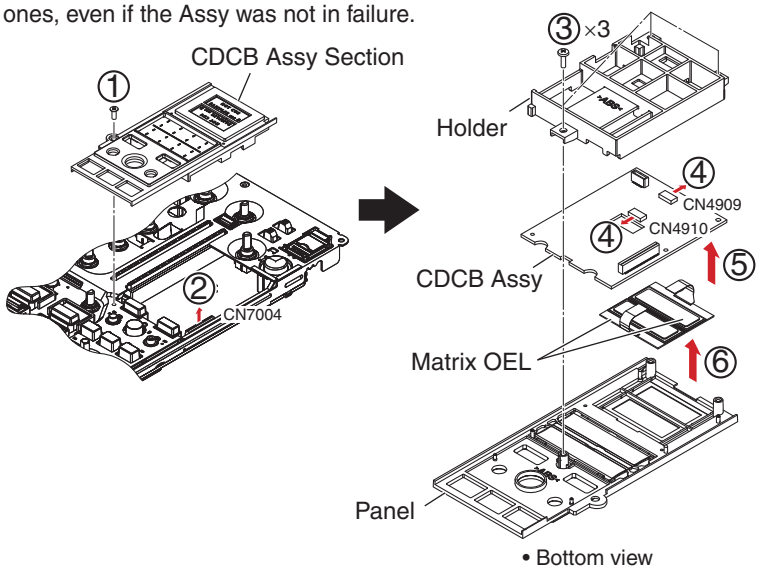
Screw tightening order
(for MAIN unit)
The other screws are random order.



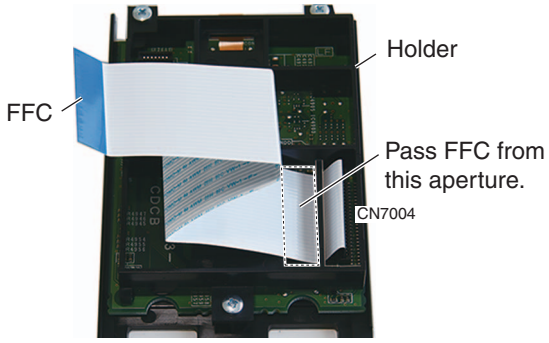


[3-2] CDCB Assy and Matrix OEL
(1) Remove the CDCB Assy Section, by removing the 1 screw.
(DBA1290)
(2) Disconnect the 1 flexible cable.
(CN7004)
(3) Remove the Holder, by removing the 3 screws.
(BPZ26P080FTC)
(4) Disconnect the 2 flxeble cables.
(CN4909, 4910)
(5) Remove the CDCB Assy.
(6) Remove the 2 Matrix OELs.

Note:
During repair, if the CDCB Assy is detached from the Panel to which it was fixed, in order to ensure the performance of the Assy, replace both the Assy and the piece of double-back tape that secured it with the new ones, even if the Assy was not in failure.

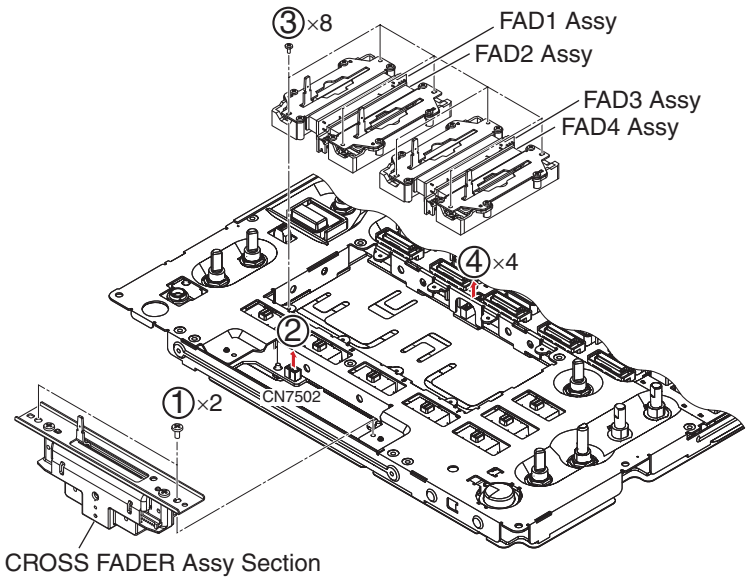


Flexible cable styling



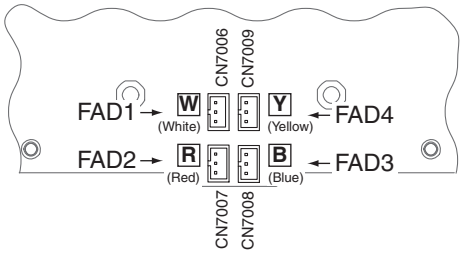
[3-3] Fader Section

(1) Remove the CROSS FADER Assy Section, by removing the 2 screws. (BBZ30P060FTC)
(2) Disconnect the 1 connector. (CN7502)
(3) Remove the FAD1 to 4 Assy Sections, by removing the 8 screws. (BSZ20P040FTB)
(4) Disconnect the 4 connectors. (CN7006 to CN7009)

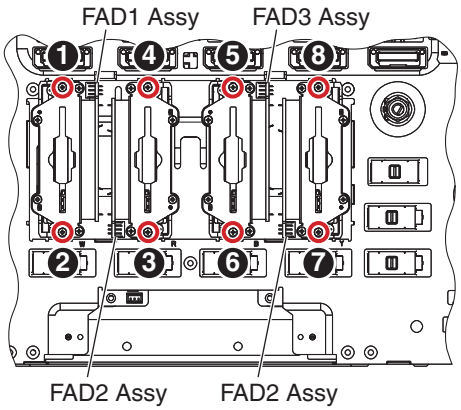


• Connectors color

Match the color of a connected connector.

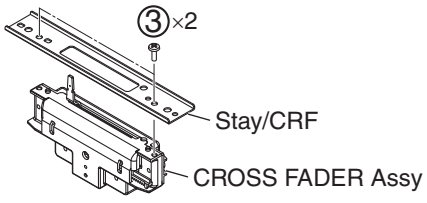


Screw tightening order



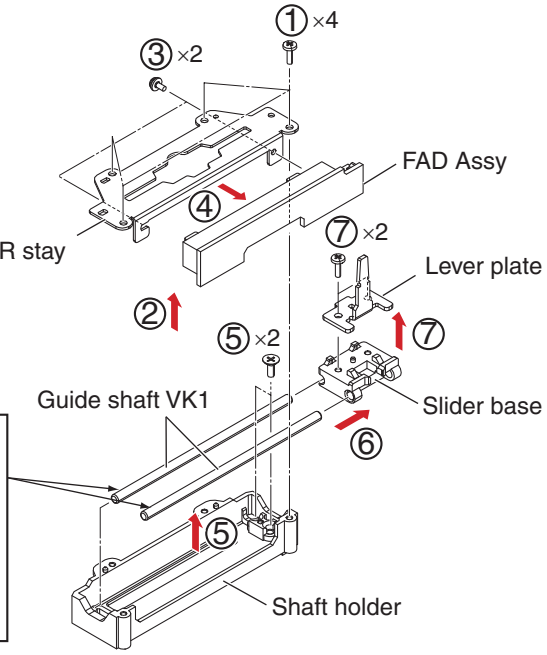
• CROSS FADER Assy

(1) Remove the Stay/CRF, by removing the 2 screws. (BPZ30P080FTB)

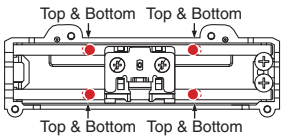


• FAD1 to FAD4 Assemblies

(1) Remove the 4 screws.
(BPZ20P060FTC)
(2) Remove the FAD Assy with VR stay.
(3) Remove the 2 screws.
(PMH20P040FTC)
(4) Remove the FAD Assy.
(5) Remove the two screws and remove the Guide shaft VK1 and Slider base Section.
(CPZ26P080FTC)
(6) Remove the Slider Section from Guide shaft VK1.
(7) Remove the 2 screws and remove the Lever plate.
(BPZ20P060FTC)



Lubricating oil
(GYA1001)

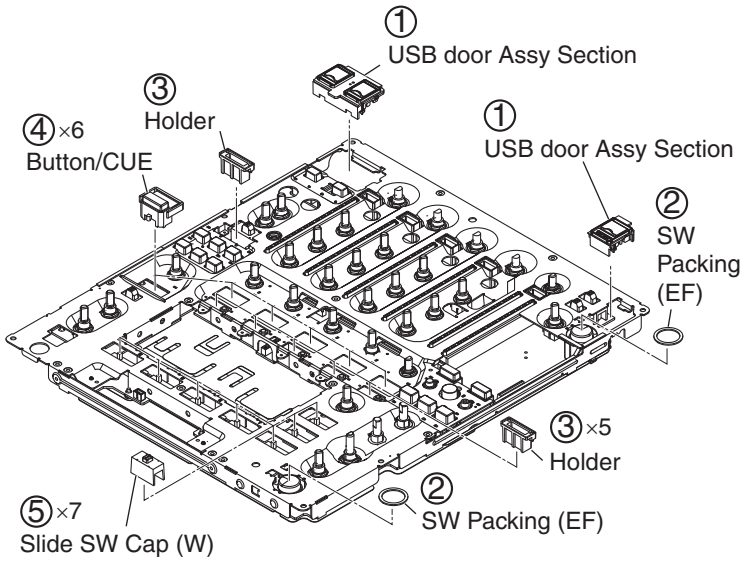


Note:
Greasing must be performed at a total of 8 points, 2 points each for the upper and bottom places of each shaft. (0.4 to 1 mg per point × 8 points)
After applying grease, move the slider base back and forth from one end to the other for approximately 10 to 20 strokes, in order to fully spread the grease.

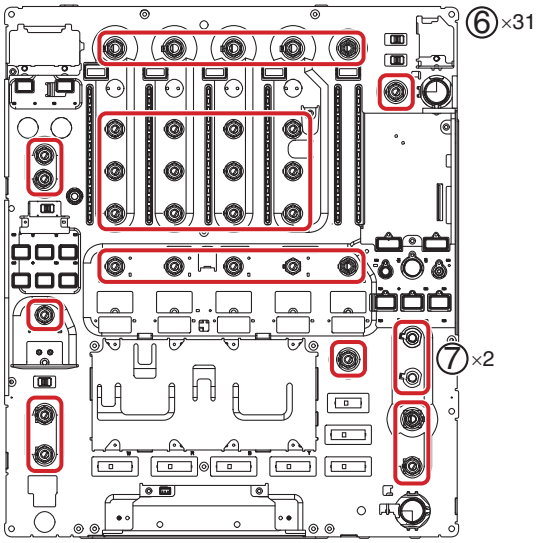
[3-4] PNLA and PNLB Assemblies

• Exterior parts

(1) Remove the 2 USB door Assy Sections.
(2) Remove the 2 SW Packings (EF).
(3) Remove the 6 holders.
(4) Remove the 6 Buttons/CUE.
(5) Remove the 7 Slide SW Caps (W).

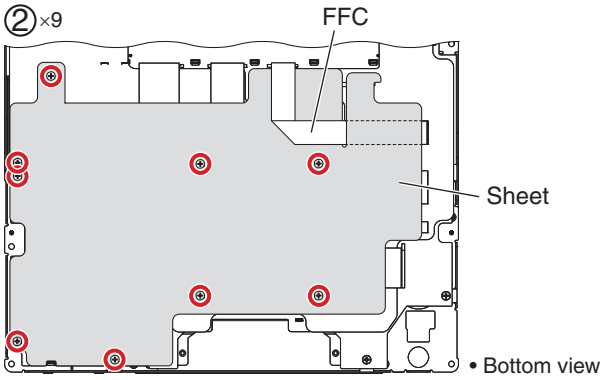


(6) Remove the 31 nuts and 31 washers.
(7) Remove the 2 nuts.

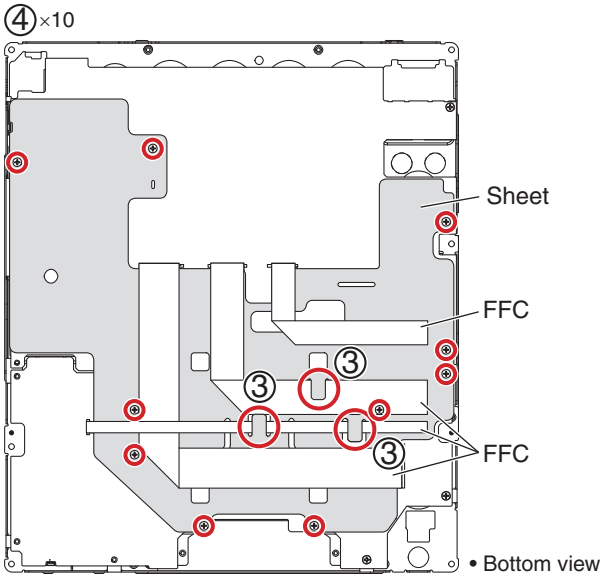


• PNLA and PNLB Assemblies

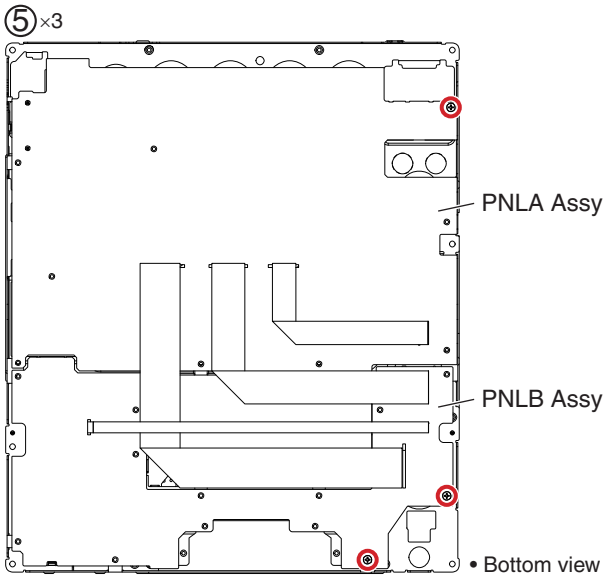
(1) Reverse the Control panel Section.
(2) Remove the Sheet, by removing the 9 screws.
(BBZ30P060FTC)



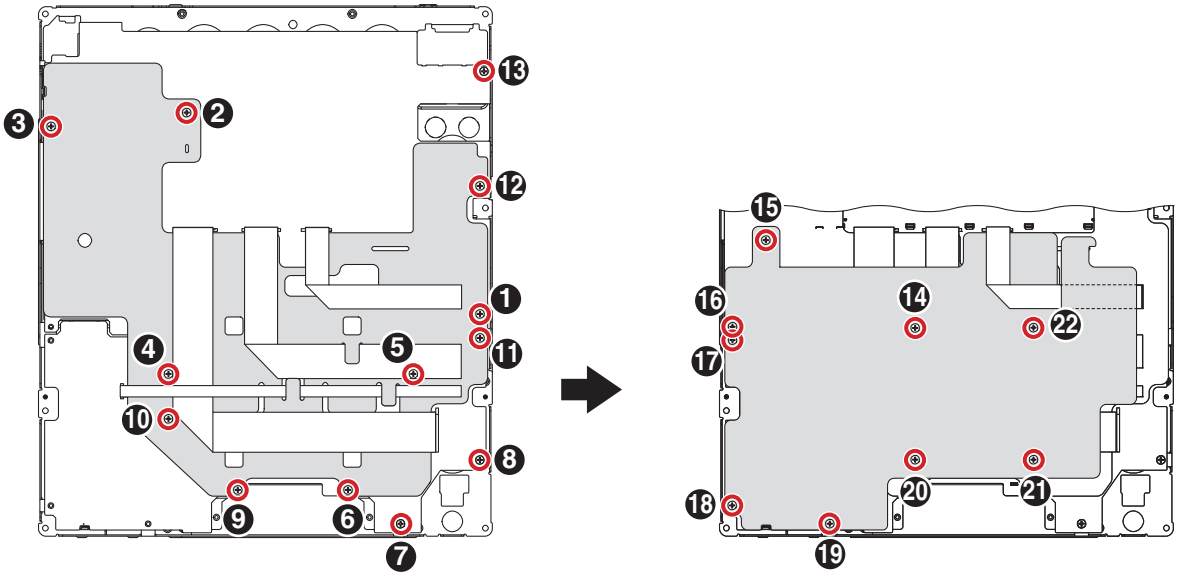
(3) Unhook the 3 hooks for FFC styling..
(4) Remove the Sheet, by removing the 10 screws.
(BBZ30P060FTC)



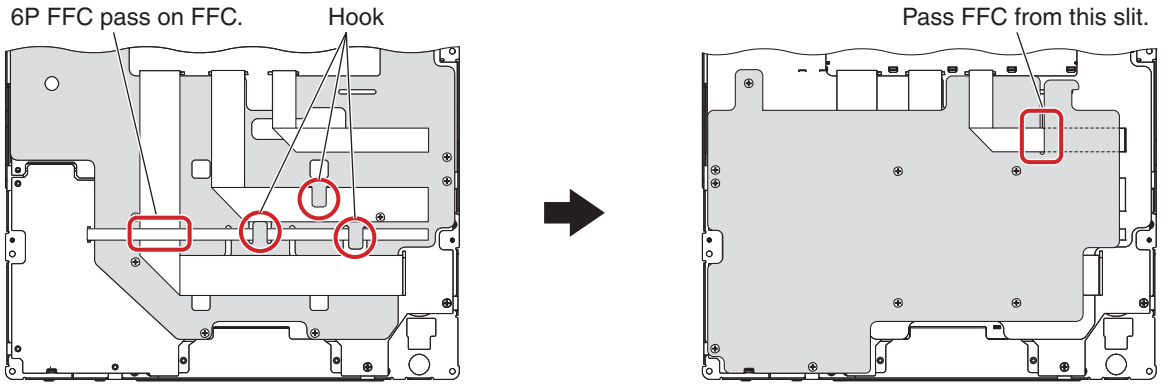
(5) Remove the PNLA and PNLB Assemblies, by removing the 3 screws. (BBZ30P060FTC)



Screw tightening order



■ Flexible cable styling



8. EACH SETTING AND ADJUSTMENT
8.1 NECESSARY ITEMS TO BE NOTED

It is recommended that you take note of the setting data before starting repair.
Use "■ Sheet for confirmation of the user setting" on "8.3 USER SETABLE ITEMS" for taking notes.
After repairing, be sure to check the version of the firmware (see “Mode 1: Software version confirmation mode. "Version"” in “6.1 TEST MODE”), and if it is not the latest one, update to the latest version.

Perform the each item when the following parts are replaced.

- MAIN Assy (MAIN UCOM: IC1, FLASH: IC8) ⇨
  - Confirmation of the version of the firmware
  - Updating to the latest version of the firmwar
- PNLA Assy (PANEL UCOM: IC7001) ⇨
  - Confirmation of the version of the firmware
  - Updating to the latest version of the firmware
  - Crossfader calibration (See Mode 2: Crossfader calibration mode "CFDR SET" in "6.1 TEST MODE")
- CROSS FADER Assy ⇨
  - Crossfader calibration (See Mode 2: Crossfader calibration mode "CFDR SET" in "6.1 TEST MODE")

8.2 UPDATING OF THE FIRMWARE

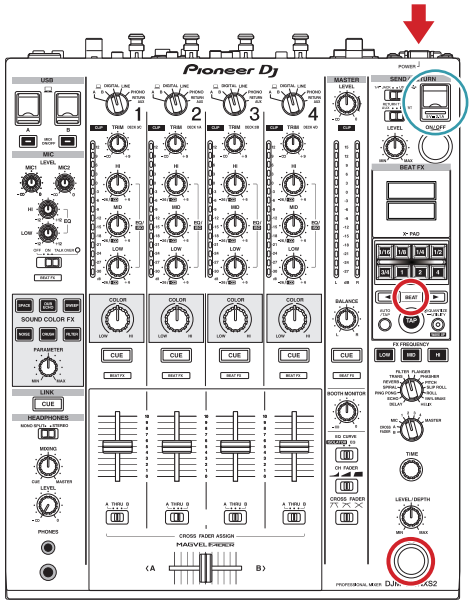
[1] Downloading and Unzipping the Updater File

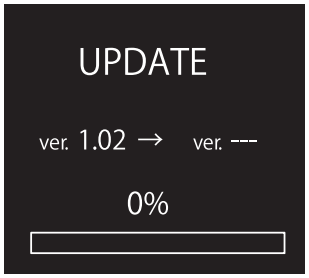
① Download the zipped firmware file for the latest firmware from Niis.
② Unzip the DJM-900NXS2_vxxx.zip file to get the updater file.
"DJM-900NXS2_vxxx.upd"
• The above xxx denotes the version of new firmware.
• The extension (.exe) may not be displayed, depending on the setting of the computer.

[2] Preparation for Updating

① Save the firmware file "DJM-900NXS2_vxxx.upd" to the root directory of USB memory.
• DO NOT rename the file name.
• DO NOT save the multiple firmware files in the USB memory.

[3] How to Update





Version display
Left: Current version
Right: Version of the firmware after updating

① Enter Update mode.
While holding the ON/OFF (BEAT FX) and MID (FX FREQUENCY) buttons pressed, press the POWER button (to set it to ON).

② Check the current version of the firmware.
Check the version indicated on the display.
If the current version is the same as the downloaded firmware version (xxx), the current firmware version is the latest and there is no need for updating.

③ Plug a USB memory device to use for updating into the USB port.
Updating starts.
The progress of updating is indicated with the bar and percentage indications on the display.
NEVER unplug the USB memory device nor turn the unit OFF during updating.
Updating takes about 2 minutes.

④ After "COMPLETE" is indicated, turn the unit OFF then unplug the USB memory device used for updating.
Updating is completed.

If updating does not start, restart from downloading of an updater. If updating cannot be started even after the above retry, the USB memory device may be faulty. Retry updating, using another USB memory device.

8.3 USER SETABLE ITEMS

This unit is provided with user settable items, as shown below.
Although no serious operational problems occur even if data for such user settable items are cleared during repair, it is recommended that you take note of those settings before starting repair.
Use the Check Sheet, to which you can transcribe the settings.
(See "■ Sheet for confirmation of the user setting" on next page.)
If the corresponding part or board Assy is replaced for repair, change the user resettable settings to those noted on the Check Sheet before starting repair. If resetting is not possible, when returning the repaired product, be sure to tell the customer that the Utility settings have been cleared and will have to be reset, as required.

Item for Which User's Setting is Available	Setting Value	Part No.	Content to be Stored
MASTER OUT		IC8 (MAIN Assy)	UTILITY setting
PEAK LIMITER	OFF, ON*		
ATT.	–12 dB, –9 dB, –6 dB, –3 dB, 0 dB*		
MONO/STEREO	MONO, STEREO*		
DIGITAL MASTER OUT			
LEVEL	–19 dB*, –15 dB, –10 dB, –5 dB		
SAMPLING RATE	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz*		
PEAK LIMITER	OFF, ON*		
MONO/STEREO	MONO, STEREO*		
BOOTH OUT			
ATT.	–12 dB, –9 dB, –6 dB, –3 dB, 0 dB*		
MONO/STEREO	MONO, STEREO*		
MIC OUT TO MASTER			
PEAK LIMITER THRESHOLD LEVEL	0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 15 dB, OFF*		
MIC OUT TO BOOTH			
LEVEL	OFF, –18 dB, –15 dB, –12 dB, –9 dB, –6 dB, –3 dB, 0 dB*		
PEAK LIMITER THRESHOLD LEVEL	0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 15 dB, OFF*		
MIC LOW CUT	OFF, ON*		
TALK OVER			
MODE	ADVANCED*, NORMAL		
LEVEL	–24 dB, –18 dB*, –12 dB, –6 dB		
MIDI			
CH	1* to 16		
BUTTON TYPE	TOGGLE*, TRIGGER		
OLED BRIGHTNESS	1 to 3*		
PC UTILITY	OFF*, ON		
AUTO STANDBY	OFF, ON*		
LOCK	OFF, ON*		
Factory Reset	YES / NO*		

*: Setting upon purchase

Sheet for confirmation of the user setting

MASTER OUT

PEAK LIMITER		ATT.					MONO/STEREO	
OFF	ON	–12 dB	–9 dB	–6 dB	–3 dB	0 dB	MONO	STEREO

DIGITAL MASTER OUT

LEVEL				SAMPLING RATE				PEAK LIMITER		MONO/STEREO	
–19 dB	–15 dB	–10 dB	–5 dB	44.1 kHz	48 kHz	88.2 kHz	96 kHz	OFF	ON	MONO	STEREO

BOOTH OUT

ATT.					MONO/STEREO	
–12 dB	–9 dB	–6 dB	–3 dB	0 dB	MONO	STEREO

MIC OUT TO MASTER

PEAK LIMITER THRESHOLD LEVEL						
0 dB	3 dB	6 dB	9 dB	12 dB	15 dB	OFF

MIC OUT TO BOOTH

LEVEL							
OFF	–18 dB	–15 dB	–12 dB	–9 dB	–6 dB	–3 dB	0 dB

PEAK LIMITER THRESHOLD LEVEL						
0 dB	3 dB	6 dB	9 dB	12 dB	15 dB	OFF

MIC LOW CUT

OFF	ON

TALK OVER

MODE		LEVEL			
ADVANCED	NORMAL	–24 dB	–18 dB	–12 dB	–6 dB

MIDI

CH																BUTTON TYPE	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOGGLE	TRIGGER

OLED BRIGHTNESS

1	2	3

PC UTILITY

OFF	ON

AUTO STANDBY

OFF	ON

LOCK

It is not necessary to refrain from contents.

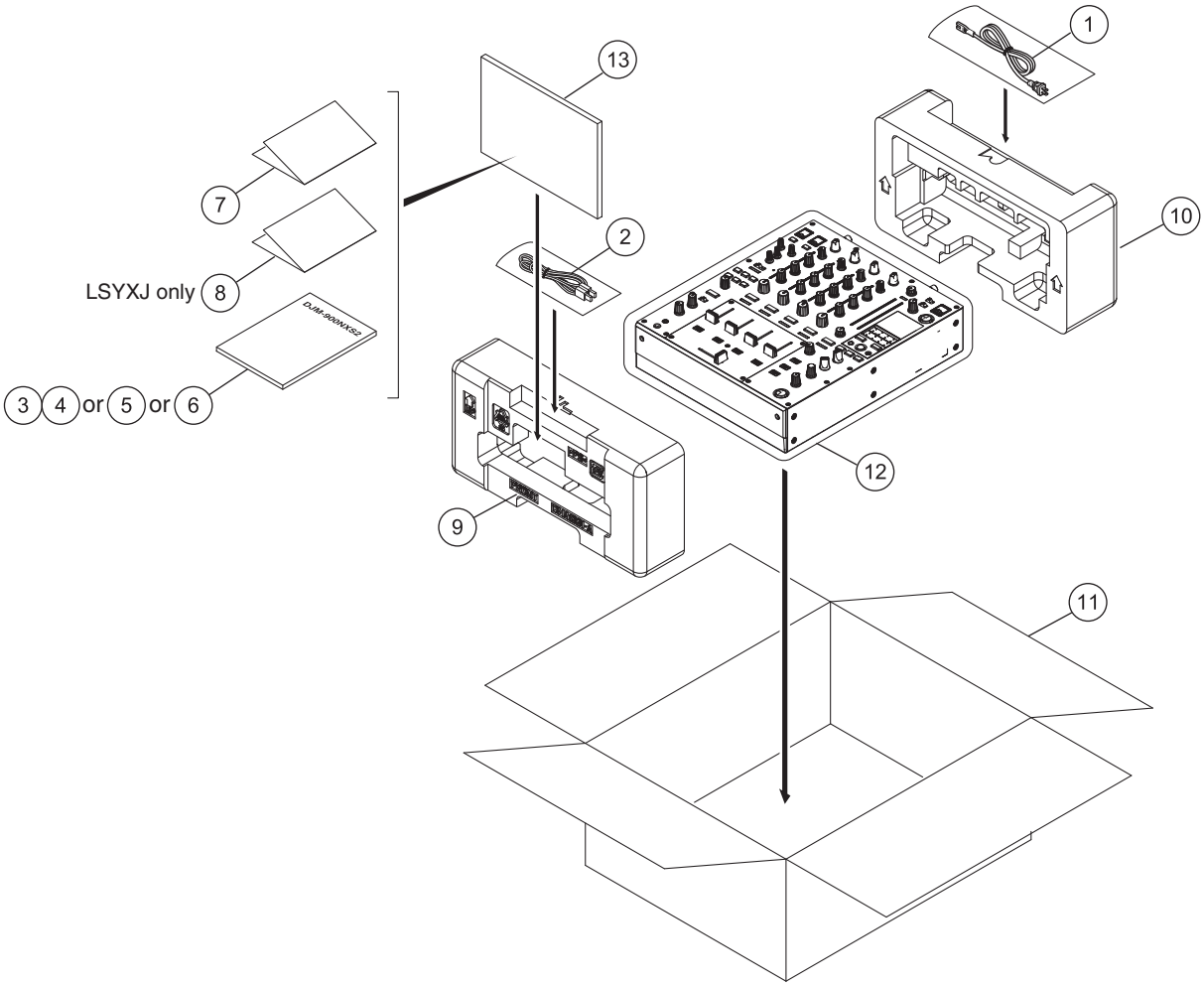
Factory Reset

Do not perform it before writing in user setting.

9. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

9.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

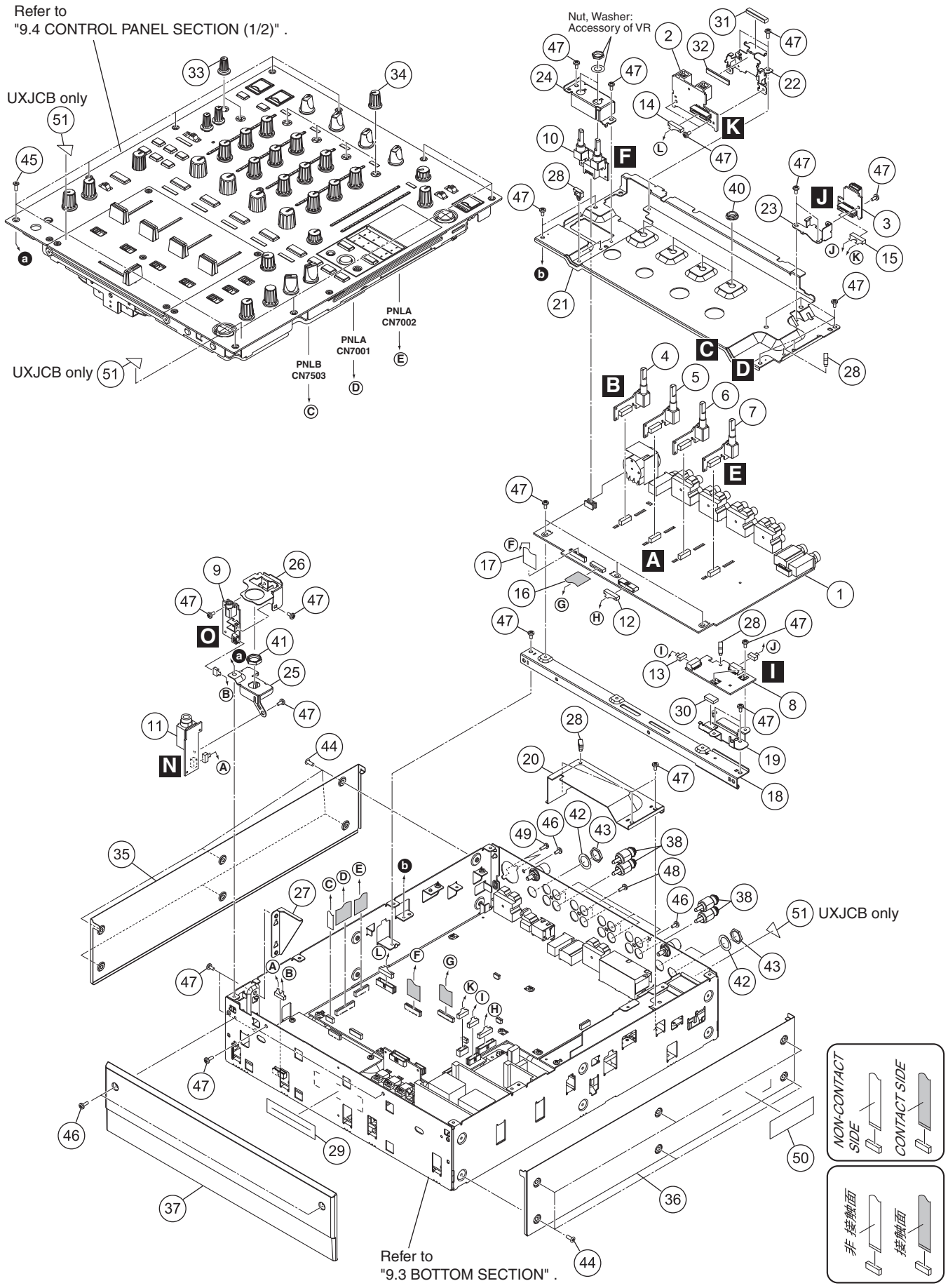
Mark	No.	Description	Part No.
⚠	1	Power Cord	See Contrast table
	2	USB Cable	DDE1128
	3	Operating Instructions (Quick Start Guide)	See Contrast table
	4	Operating Instructions (Quick Start Guide)	See Contrast table
	5	Operating Instructions (Quick Start Guide)	See Contrast table
	6	Operating Instructions (Quick Start Guide)	See Contrast table
NSP	7	Leaflet	See Contrast table
NSP	8	Warranty	See Contrast table
	9	Packing Pad	DHA1931
	10	Packing Pad	DHA1932
	11	Packing Case	See Contrast table
	12	Packing Sheet	RHC1023
NSP	13	Polyethylene Bag	AHG7117

(2) CONTRAST TABLE

DJM-900NXS2/LSYXJ, UXJCB and XJCN are constructed the same except for the following:

Mark	No.	Symbol and Description	DJM-900NXS2 /LSYXJ	DJM-900NXS2 /UXJCB	DJM-900NXS2 /XJCN
⚠	1	Power Cord	ADG1244	DDG1108	DDG1114
	3	Operating Instructions (Quick Start Guide)(En, Fr, De, It)	DRH1331	Not used	Not used
	4	Operating Instructions (Quick Start Guide)(Nl, Es, Pt, RU)	DRH1332	Not used	Not used
	5	Operating Instructions (Quick Start Guide)(En)	Not used	DRH1330	Not used
	6	Operating Instructions (Quick Start Guide)(Zhcn)	Not used	Not used	DRH1333
NSP	7	Leaflet	DRH1275	DRH1275	DRH1274
NSP	8	Warranty	ARY7158	Not used	Not used
	11	Packing Case	DHG3429	DHG3445	DHG3447

9.2 EXTERIOR SECION



(1) EXTERIOR SECTION PARTS LIST

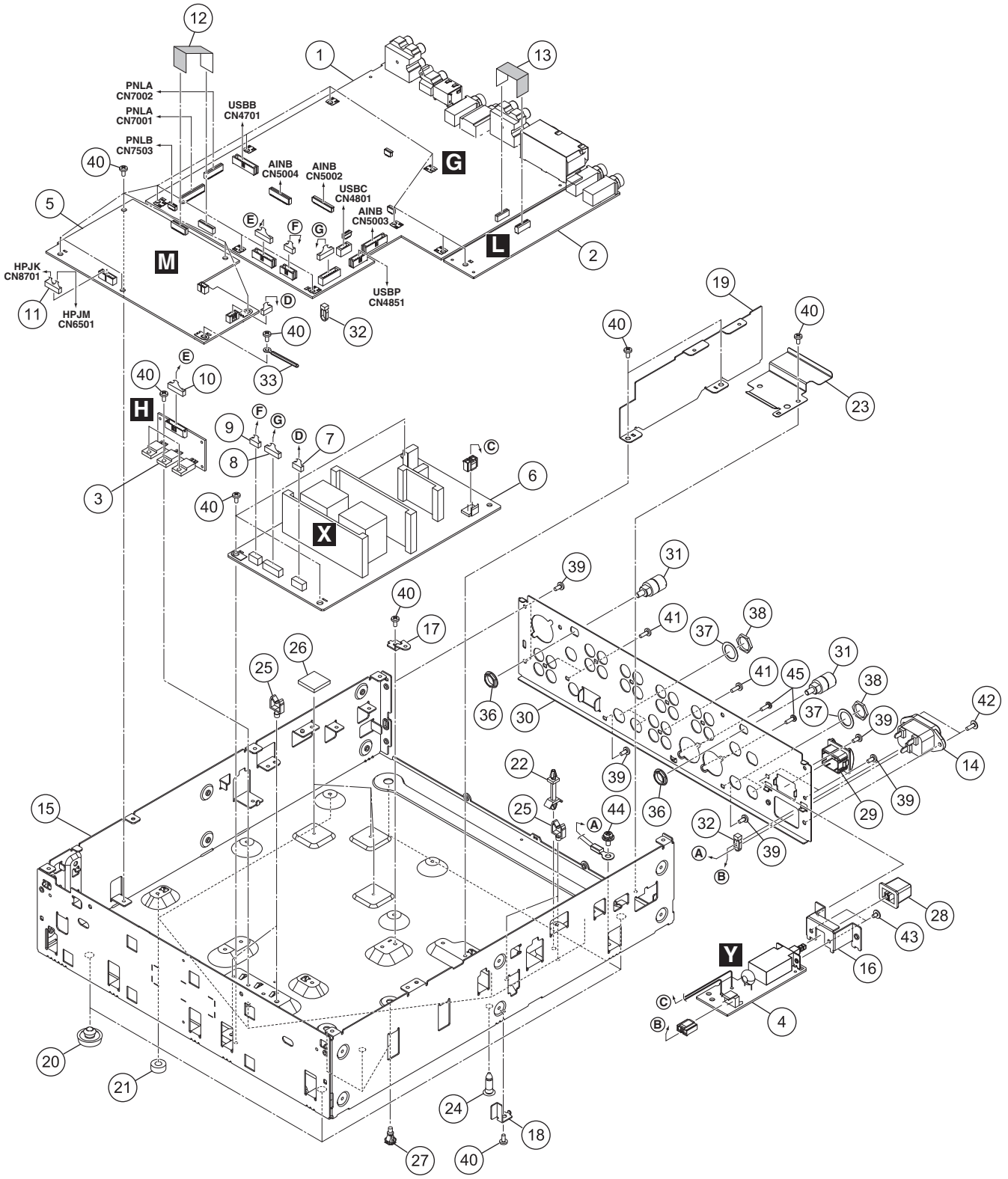
Mark	No.	Description	Part No.
	1	AINB Assy	DWX3713
	2	USBB Assy	DWX3711
	3	USBC Assy	DWX3712
	4	TRM1 Assy	DWX3715
	5	TRM2 Assy	DWX3716
	6	TRM3 Assy	DWX3717
	7	TRM4 Assy	DWX3718
	8	USBP Assy	DWX3734
	9	HPJM Assy	DWX3739
	10	MTRM Assy	DWX3729
	11	HPJK Assy	DWX3731
	12	Crimp Connector	PF10PP-D07
	13	Connector Assy	PF06PP-S12
	14	Shielded Conn-Cable	DDA1054
	15	Shielded Conn-Cable	DDA1056
	16	40P FFC	DDD1550
	17	FFC	DDD1715
	18	Stay	DNF1960
	19	Stay	DNF1951
	20	Case	DNF1952
	21	Stay	DNF1953
	22	Stay	DNF1954
	23	Stay	DNF1955
	24	Stay	DNF1958
	25	Stay	DNF1966
	26	Stay	DNF1967
	27	Stay	DNF1968
	28	Locking Mini Clamp	DEC2439
	29	Fader Packing	DEC2903
	30	Sheet	DEC3621
	31	EMC Gasket	DEC3637
	32	EMC Gasket	DEC3638
	33	Knob	DAA1354
	34	Knob/CH	DAA1321
	35	Panel	DNF1956
	36	Panel	DNF1957
⚠	37	Panel	DNK6509
	38	Plug/Pin	DKM1024
	39	•••••	
	40	Flange Nut M7	DBN1011
	41	Nut M12	DBN1018
	42	Washer	DEC2920
	43	Nut	NKX2FTC
	44	Screw (FE)	DBA1290
	45	Screw	DBA1446
	46	Screw	BBZ30P060FTB
	47	Screw	BBZ30P060FTC
	48	Screw	BPZ30P080FTB
	49	Screw	PPZ30P080FTB
NSP	50	Name Label	See Contrast table
NSP	51	Label	See Contrast table

(2) CONTRAST TABLE

DJM-900NXS2/LSYXJ, UXJCB and XJCN are constructed the same except for the following:

Mark	No.	Symbol and Description	DJM-900NXS2 /LSYXJ	DJM-900NXS2 /UXJCB	DJM-900NXS2 /XJCN
NSP	50	Name Label	DRW2687	DRW2675	DRW2674
NSP	51	Label	Not used	DRW1975	Not used

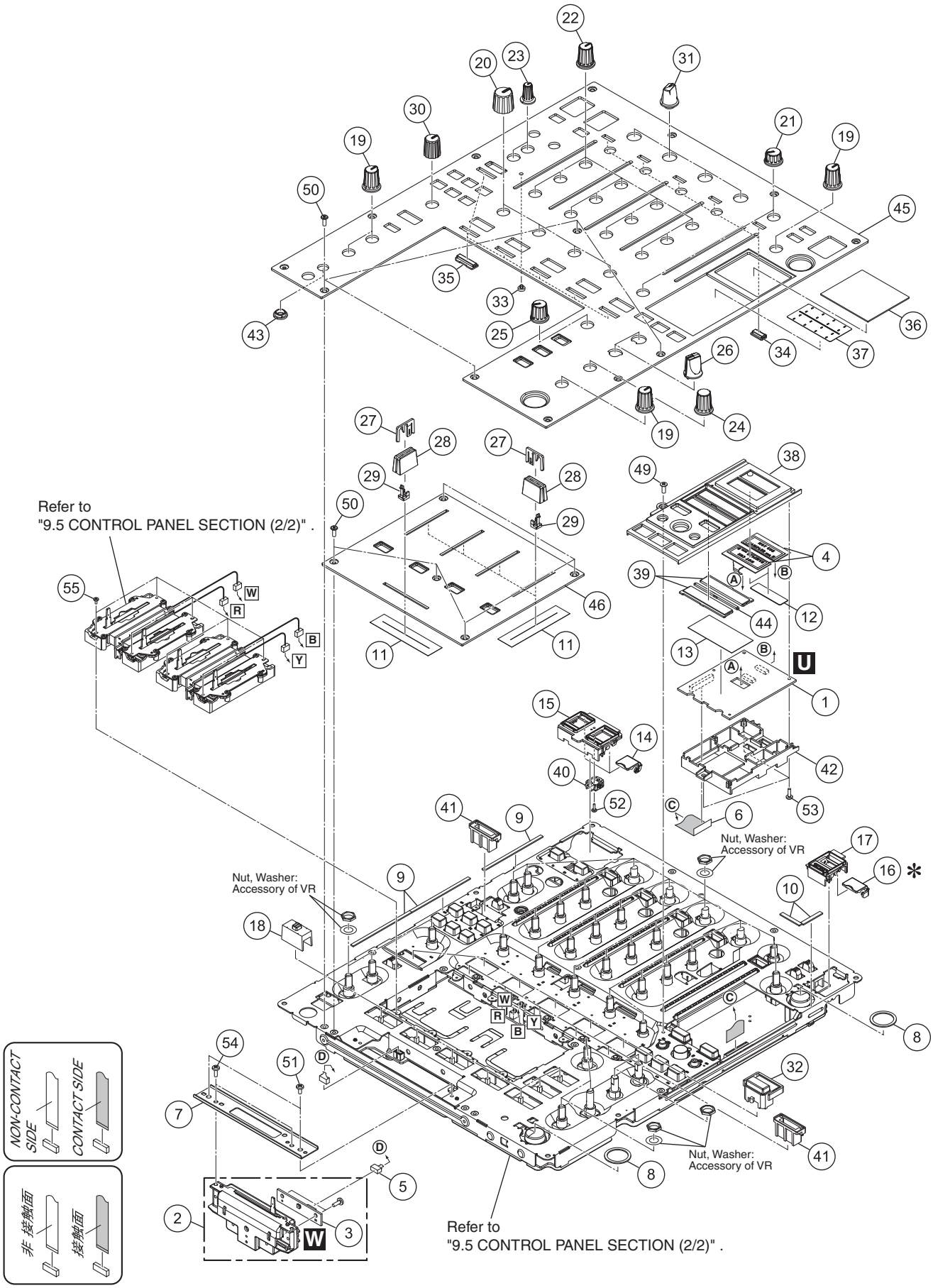
9.3 BOTTOM SECION



BOTTOM SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	MAIN Assy	DWX3710
	2	SEND Assy	DWX3714
	3	REGB Assy	DWX3721
	4	ACSW Assy	DWX3722
	5	HPPW Assy	DWX3728
⚠	6	SW POWER SUPPLY	DWR1549
	7	Crimp Connector	PF05PP-S25
	8	Crimp Connector	PF08PP-S20
	9	Connector Assy	PF04PP-S12
	10	Crimp Connector	PF09PP-S07
	11	Shielded Conn-Cable	DDA1061
	12	FFC	DDD1714
	13	FFC	DDD1716
⚠	14	AC Inlet	DKP3978
	15	Chassis	DNA1457
	16	Bracket PSW	DNF1759
NSP	17	PCB Stay (FE)	VNE2489
	18	Stay	DNF1950
	19	Shield Plate	DNF1959
	20	Foot (Rubber)	REC-434
NSP	21	Spacer	AEB7092
NSP	22	PCB Spacer	AEC1446
	23	Sheet	DEC3617
	24	PCB Holder	PNW2029
	25	Holder	VEC1355
	26	Sheet	DEC3618
	27	Spacer	DEC3636
	28	Power Knob	DAC2306
	29	Power Knob Guard	DNK4534
	30	Rear Panel	DNC2119
	31	Earth Terminal	DKE1019
	32	Cable Tie	ZCA-SKB90BK
	33	Cord Clamper (Steel)	RNH-184
	34	•••••	
	35	•••••	
	36	Flange Nut M9	DBN1008
	37	Washer	DEC2920
	38	Nut	NKX2FTC
	39	Screw	BBZ30P060FTB
	40	Screw	BBZ30P060FTC
	41	Screw	BPZ30P080FTB
	42	Screw	IBZ30P080FTB
	43	Screw	IMZ30P040FTC
	44	Screw	PMH40P080FTC
	45	Screw	PPZ30P080FTB

9.4 CONTROL PANEL SECTION (1/2)



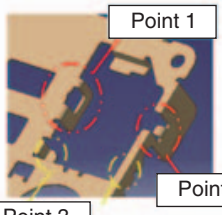
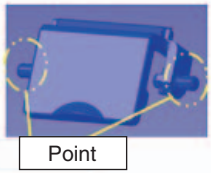
CONTROL PANEL SECTION (1/2) PARTS LIST

Mark	No.	Description	Part No.
	1	CDCB Assy	DWX3733
	2	1..CROSS FADER Assy	DXA2257
NSP	3	2..CRFD Assy	DWX3258
	4	Matrix OEL	MXS4057
	5	Connector Assy	PF03PP-B07
	6	FFC	DDD1719
	7	Stay/CRF	DNF1927
	8	SW Packing (EF)	DEC2929
	9	Packing/L	DEC3416
	10	Packing/S	DEC3417
	11	Fader Packing	DEC2903
	12	Sheet	DEC3615
	13	Tape	DEH1083
	14	Lid	DNK6550
	15	Panel	DNK6539
	16	Lid	See Contrast table *
	17	Panel	DNK6651
	18	Slide SW Cap (W)	DAC2401
	19	Rotary Knob (BN)	DAA1220
	20	Knob/FRE	DAA1309
	21	Rotary Knob Low (BN)	DAA1265
	22	Knob/RSW	DAA1305
	23	Knob/RSW	DAA1307
	24	Rotary SW Knob (C)	DAA1180
	25	Rotary SW Knob (MA)	DAA1198
	26	Select Knob	DAA1205
	27	Slider Knob 2	DAC2685
	28	Slider Knob 1	DAC2684
	29	Slider Knob Stopper	DNK5888
	30	Knob (RES)	DAA1250
	31	Knob	DAA1345
	32	Button/CUE	DAC2882
	33	Lens	DNK4532
	34	Lens	DNK6516
	35	Lens	DNK6517
	36	Plate	DAK1003
	37	Panel	DNK6514
	38	Panel	DNK6515
	39	Lens	DNK6518
	40	Holder	DNK6549
	41	Holder	DNK6512
	42	Holder	DNK6513
	43	Holder	DNK6552
	44	Lens	DNK6553
	45	Control Panel	DNB1243
	46	Panel	DAH3053
	47	•••••	
	48	•••••	
	49	Screw (FE)	DBA1290
	50	Screw	DBA1446
	51	Screw	BBZ30P060FTC
	52	Screw	BPZ20P060FTC
	53	Screw	BPZ26P080FTC
	54	Screw	BPZ30P080FTB
	55	Screw	BSZ20P040FTB

Note*:
The shape of the lid (No.16) has been changed to improve the quality of attachment.
Check [Before change] and [After change] rows in the table below and choose the lid and stay (No.8 on the next page) to replace.

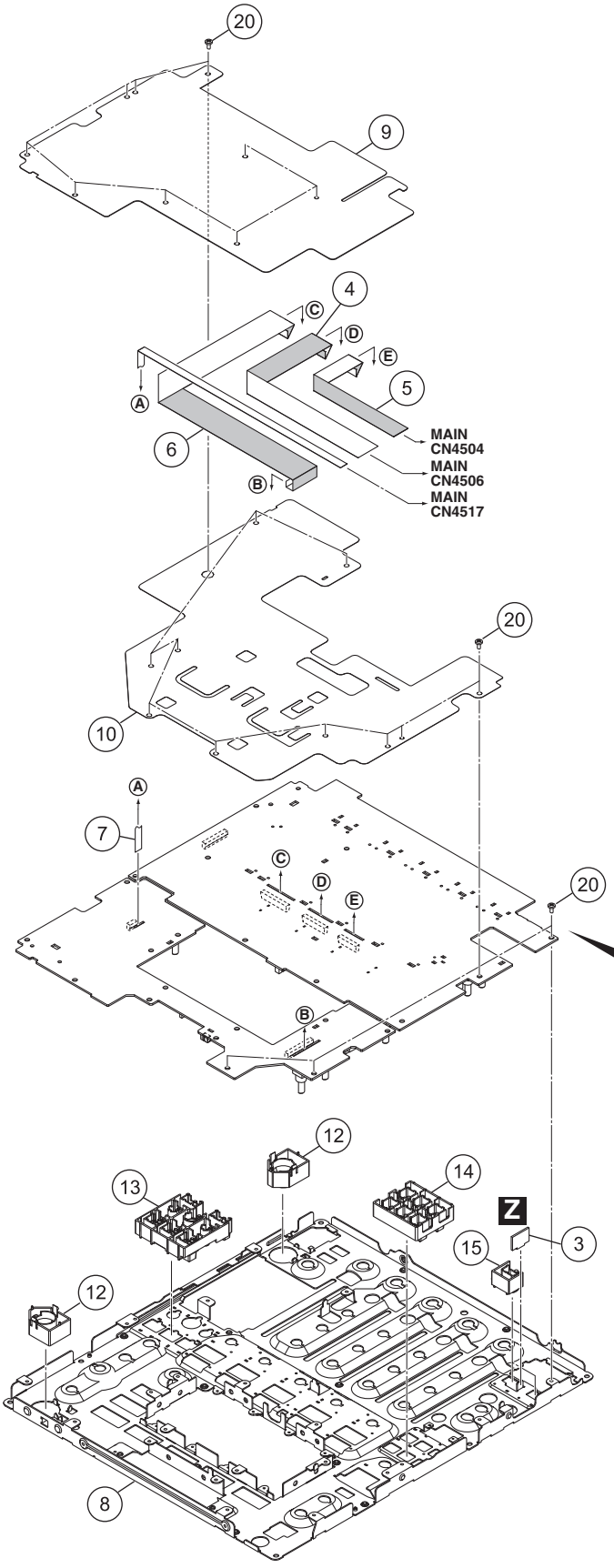
■ Contrast table

Mark	No.	Part Name		Part No.	Stay	Note
	16	Lid	Before Change	DNK6551	DND1286 (NSP)	For details of each part, refer to the table below.
			After Change	DNK6652	DND1308	

Before change	After change	Note
Stay (DND1286) Lid (DNK6551)	Stay (DND1308)  Lid (DNK6652) 	Number of units before change: LSYXJ: 4,000 UXJCB: 2,000 XJCN: 100 (The number of units is approximate. Serial number is unavailable.)

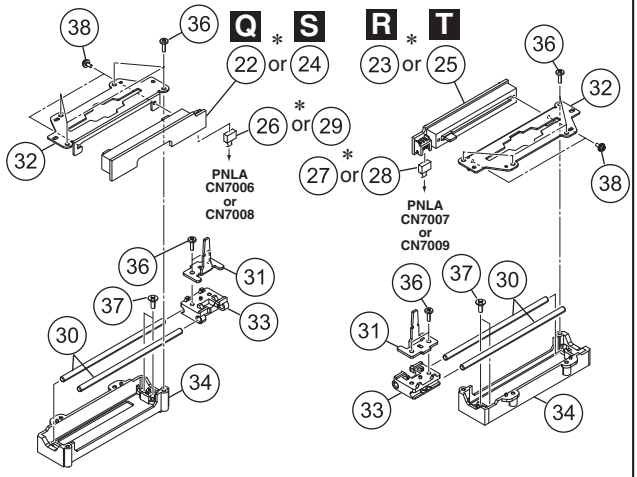
9.5 CONTROL PANEL SECTION (2/2)

• Bottom view

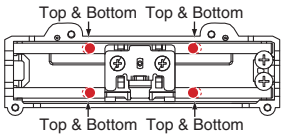


■ Channel Fader Section

*: These parts may substitute it each other.
*: 相互で代用可能

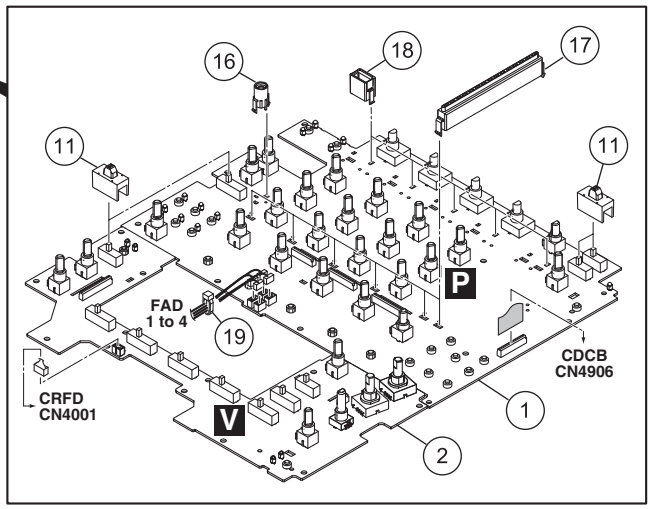


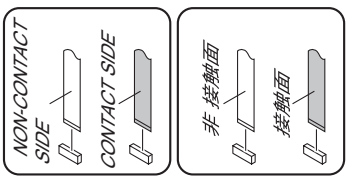
Lubricating oil
(GYA1001)



Note:
Greasing must be performed at a total of 8 points, 2 points each for the upper and bottom places of each shaft. (0.4 to 1 mg per point × 8 points)
After applying grease, move the slider base back and forth from one end to the other for approximately 10 to 20 strokes, in order to fully spread the grease.

注意:
グリス塗布位置は各シャフト上下2箇所ずつ計8箇所です。
(1ポイント当たり 0.4〜1 mg ×8ポイント)
グリス塗布後はスライダーベースを動かして (フルストローク)
摺動部にグリスを十分なじませてください。
(動かす回数の目安は10〜20往復)





CONTROL PANEL SECTION (2/2) PARTS LIST

Mark	No.	Description	Part No.
	1	PNLA Assy	DWX3719
	2	PNLB Assy	DWX3720
	3	GRDM Assy	DWX3862
	4	FFC	DDD1717
	5	FFC	DDD1718
	6	FFC	DDD1720
	7	FFC	DDD1738
	8	Stay	DND1308
	9	Sheet	DEC3616
	10	Sheet	DEC3620
	11	Cap	DAC3136
	12	Button	DAC3141
	13	Button	DAC3142
	14	Button	DAC3143
	15	Button	DAC3144
	16	Lens Holder	DNK4533
	17	Level Meter Assy	DXB1882
	18	Holder	DNK6511
	19	Cable Tie	ZCA-SKB90BK
	20	Screw	BBZ30P060FTC
	21	•••••	
	22	FAD1 Assy	DWX3723
	23	FAD2 Assy	DWX3724
	24	FAD3 Assy	DWX3725
	25	FAD4 Assy	DWX3726
	26	Connector Assy	PF03PP-B10
	27	Crimp Connector	PF03PP6B10
	28	Connector Assy	PF03PP4B12
	29	Connector Assy	PF03PP2B12
NSP	30	Guide Shaft VK1	DLA1978
	31	Lever Plate	DNH2954
	32	VR Stay	DNH2955
	33	Slider Base	DNK5851
	34	Shaft Holder	DNK5852
	35	•••••	
	36	Screw	BPZ20P060FTC
	37	Screw	CPZ26P080FTC
	38	Screw	PMH20P040FTC